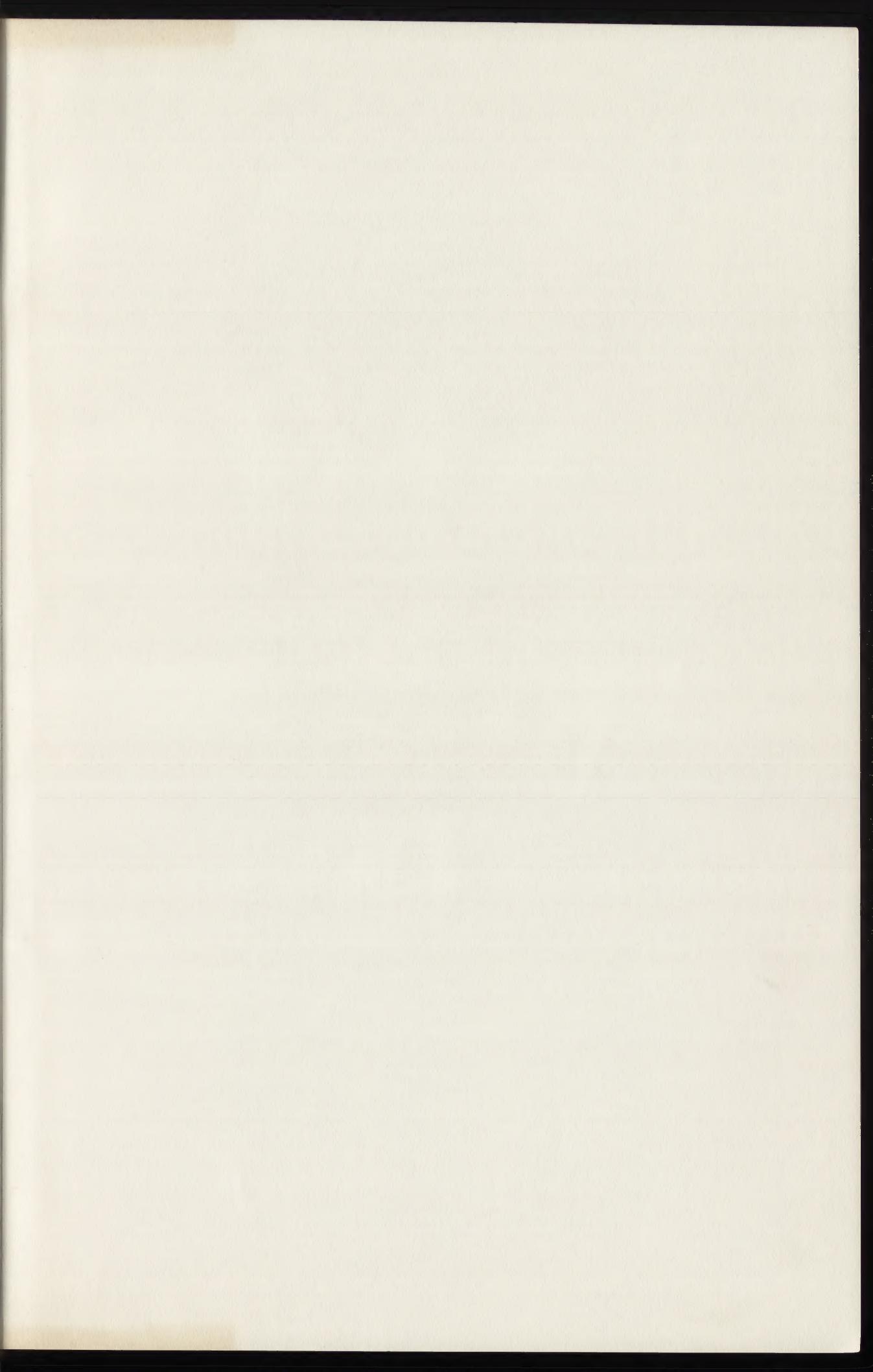


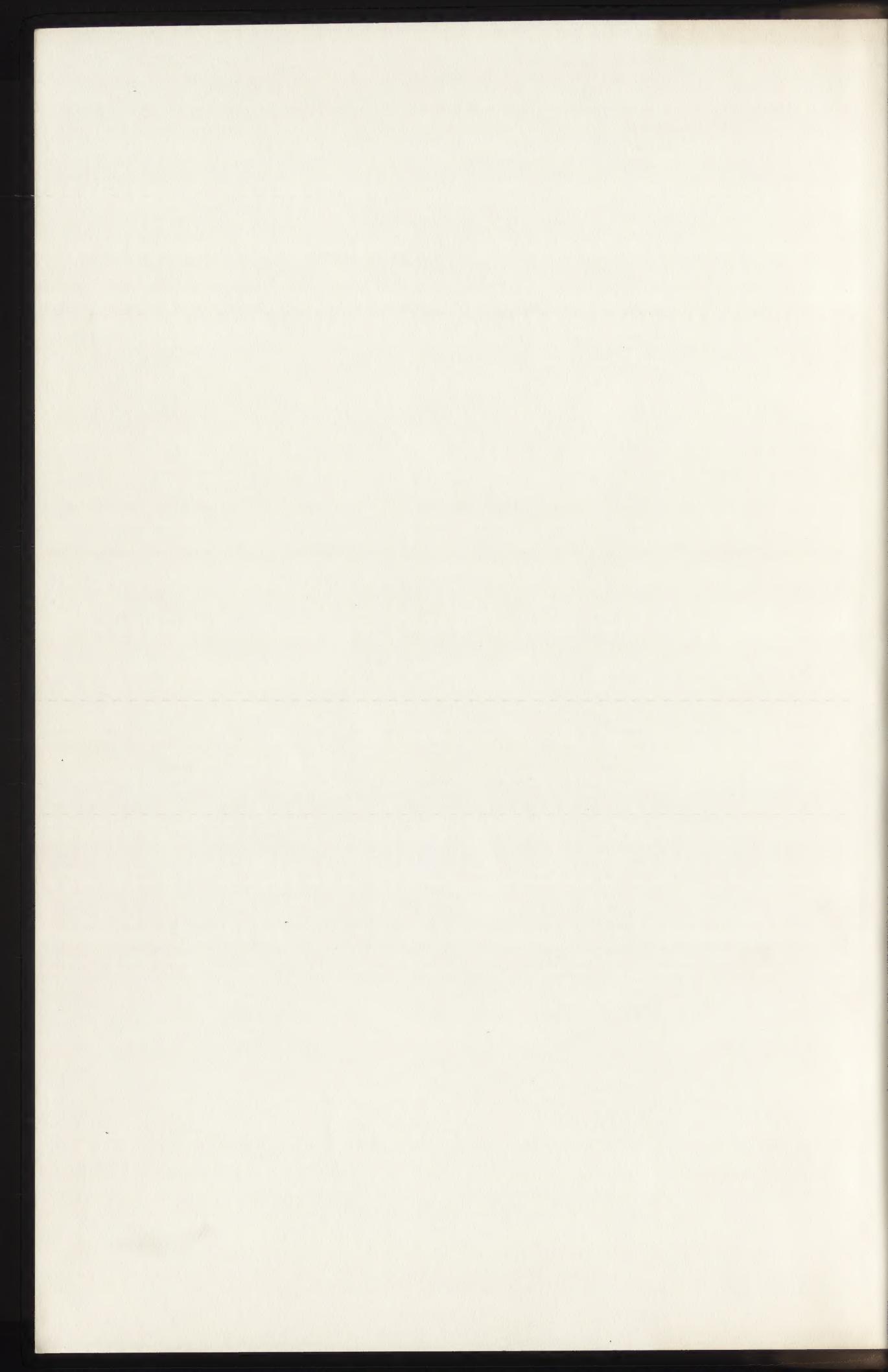
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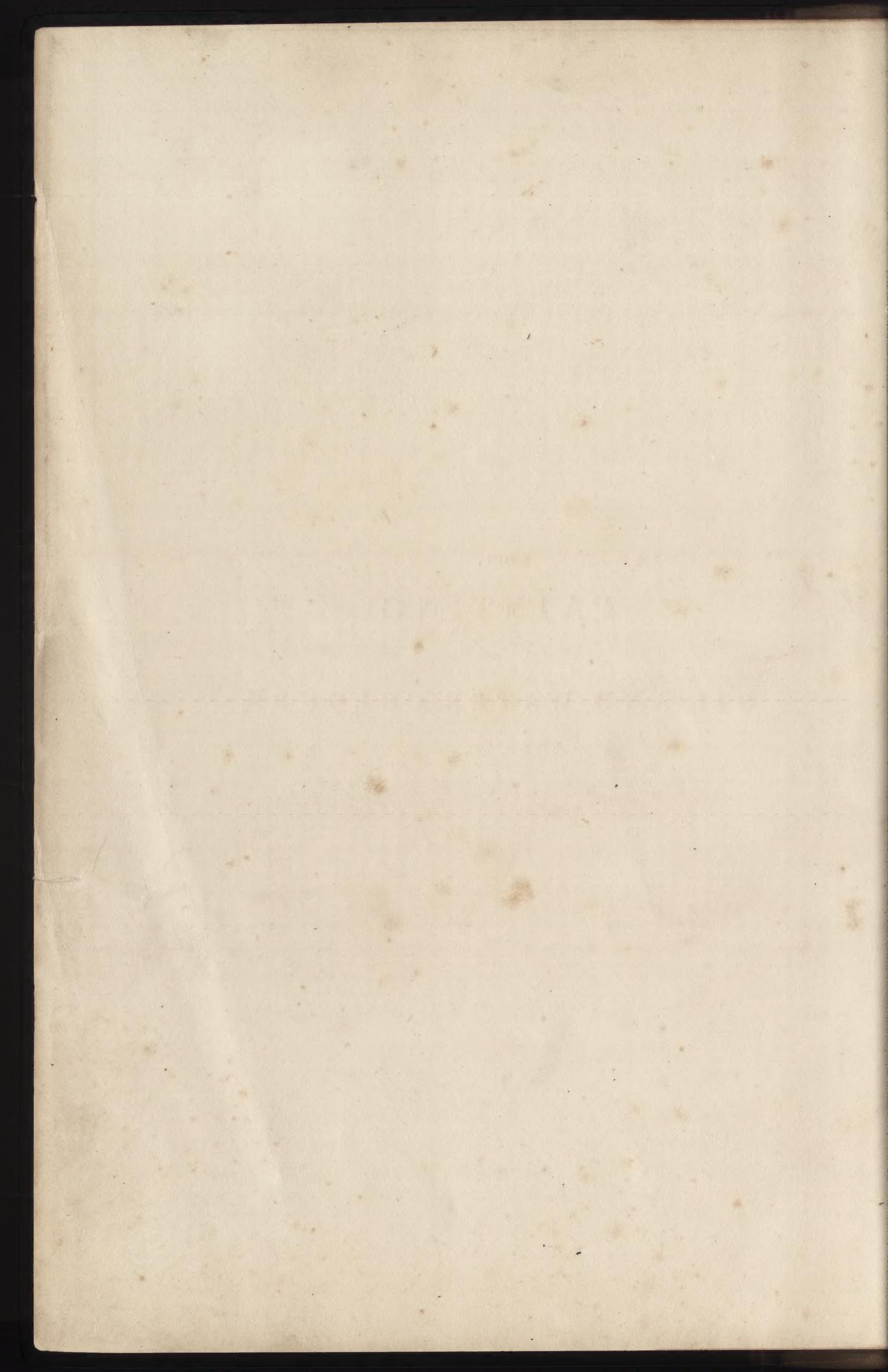
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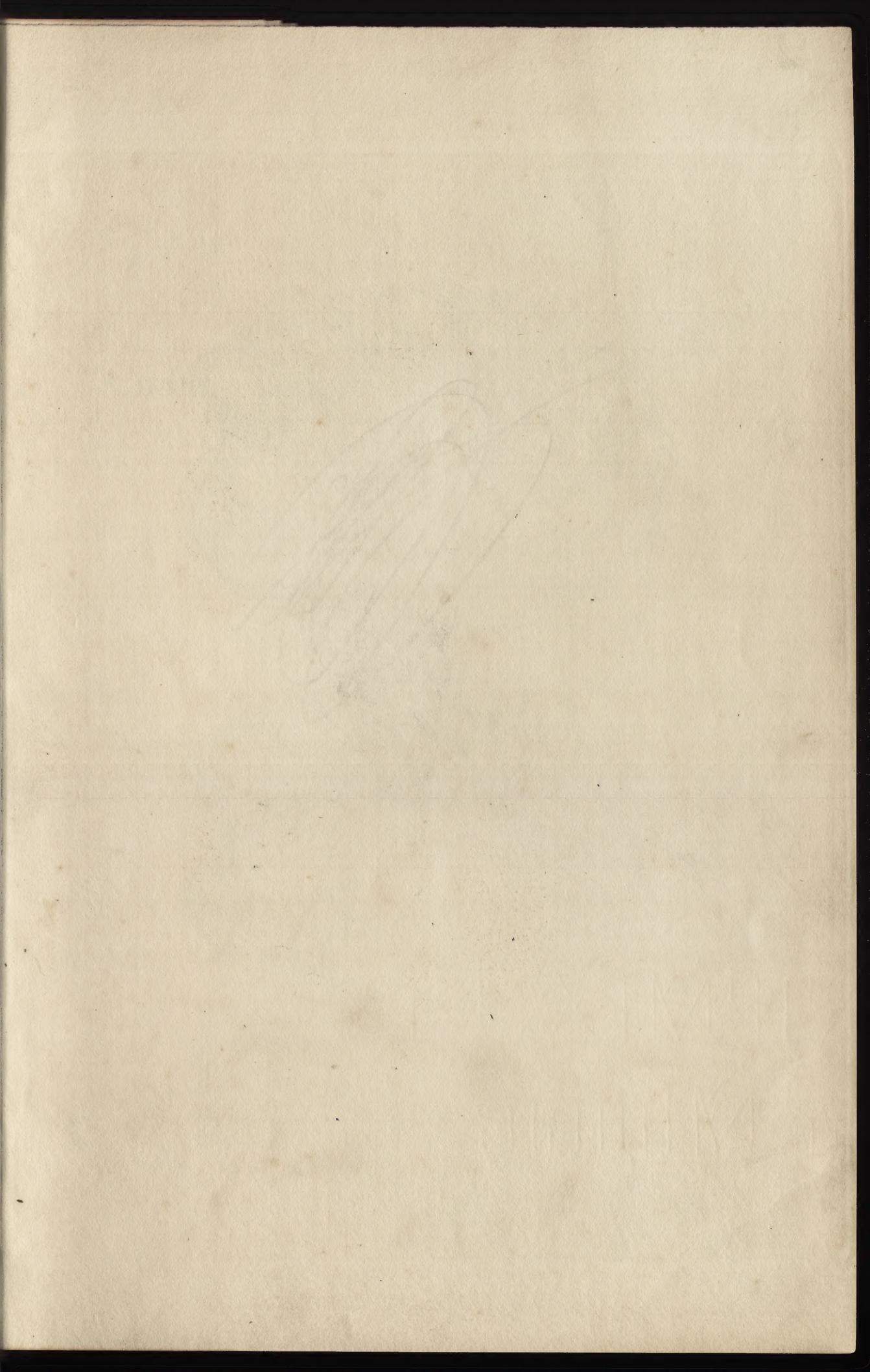






ON  
**PAINTING**  
IN  
**OIL AND WATER COLOURS,**  
&c. &c.





*Plate I.*



ON  
**PAINTING**  
IN  
**OIL AND WATER COLOURS,**  
FOR  
**LANDSCAPE AND PORTRAITS;**  
INCLUDING THE  
**PREPARATION OF COLOURS, VEHICLES, OILS, &c.,**  
**METHOD OF PAINTING IN WAX, OR ENCAUSTIC;**  
ALSO ON THE  
**CHEMICAL PROPERTIES AND PERMANENCY OF COLOURS,**  
AND ON THE BEST METHODS OF CLEANING AND REPAIRING OLD PAINTINGS, &c.

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Illustrated with Plain and Coloured Plates.

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BY T. H. FIELDING,

TEACHER OF PAINTING IN WATER-COLOURS TO THE SENIOR CLASSES AT THE HONOURABLE EAST-INDIA COMPANY'S  
MILITARY COLLEGE;  
AUTHOR OF "THE THEORY OF PAINTING," "SYNOPSIS OF PERSPECTIVE," &c. &c.

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## P R E F A C E.

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THE very small number of practical treatises on Oil Painting that have appeared in the English language during the last fifty years, or, it may be truly said, since the revival of painting, will give some additional value to this portion of the following work. On the other hand, works which treat on painting in water-colours have been so multiplied, that none can complain of their scarcity ; yet, notwithstanding their number, it is believed, that in this, there will be found a more simple and shorter mode of proceeding than in most others, for the Author has seen this art grow up from the feeblest tinted India ink drawings (or, as they are called in the old catalogues of the Royal Exhibition, “water-tinted drawings”), into its present powerful and effective system, rivalling painting in oils in many instances, and in some surpassing it. He has also had opportunities of seeing the practice of some of our best artists, and has invariably

adopted every improvement that has fallen under his observation, and he cannot but feel entitled to claim the merit of having been an attentive observer of the progressive advancement going on in his own profession, and of selecting every thing that seemed to give legitimate power and facility towards perfecting this branch of the art.

It is hoped that some valuable information will be found in the sections which treat on the properties of colours, varnishes, and those substances or mixtures called vehicles (used instead of oils), amongst which will be found one communicated by the late Sir William Beechey, now first published, and which most probably contributed much to the purity and brilliancy of the paintings of this excellent artist; the Author also believes, that many hints worthy of attention will be found under the head of picture cleaning, a subject that has too often been considered of minor importance to receive the notice it deserves; and throughout the work he has been careful not to recommend any thing to the reader's attention without its having been well tried, either by himself, or by others whose authority he has considered to be unquestionable.

ON  
**P A I N T I N G   I N   O I L.**

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**INTRODUCTION.**

WERE we acquainted with the ancient method of using oil colours, we perhaps might find that the modern practice is not very widely different from that which has been in use since the revival of painting in the fourth century, and that a detailed account of either, most probably would nearly serve for both.

Many ancients and moderns have made great mistakes, but with these we shall have nothing to do; for the inexpertness of practitioners can no more give character to an art, than the mal-practices of individuals can rob our nature of the higher virtues of which it is capable. Many also imagine that particular effects in painting were produced by some means kept by the artist to himself, and often carried by him to the grave; these ideas are fortunately falling out of fashion, and we no longer are

running mad after Titian's grounds, or the vehicles used by others, in order to ensure transparency or richness of colouring.

We have at the present time a much greater assortment and choice of colours, with a better knowledge of what are permanent or fugacious; this knowledge has been added by the improvements in modern chymistry, and the number of colours have increased so much, that the only difficulty now remaining is in choosing a number sufficiently small, in order not to embarrass the palette. Nor have the artists of England been idle; for if we regard the productions of either our landscape, historical, or portrait painters, and compare them with the works of their predecessors no farther back than a century, we shall find such a regular and rapid improvement, that we are fully borne out in the expectation that future ages will look up to the English school for excellences peculiar to itself, and the warmest friends of this fascinating art have now only to wish for places in which our best works could be displayed and preserved.

The invention of Painting in Oils is ascribed to John Van Eyk, in 1410; but it is evidently of much older date, as we find in a work by Theophilus (a monk, living not later, but perhaps before, the year 1000), entitled "De Arte Pingendi," directions that pannels, &c. should be prepared for pictures by being first painted with colours ground in linseed oil, and also that *all colours may be ground in oil*. In another work, entitled "De Artis Romanorum," by Heraclius, who lived about the same time,

we find similar directions, which we think very fairly so far sets the matter at rest. The originals of both these works were published in a small quarto volume, with observations, by R. E. Raspe, 1781, and are of great antiquarian value.

Before the mode of painting in distemper and fresco were laid aside, a mixed method, partaking of distemper and oils, was used by many artists of the Venetian and other schools; nor is the practice yet entirely abandoned, as some imitators of old paintings still employ the distemper in commencing their works, for the purpose of obtaining that hardness of surface which nothing but great age can give to works in oils. The surface of pictures done in this mixed manner will not yield on being pressed with a point or the edge of a knife, one out of the numerous tests of antiquity!

Paolo Veronese, the Bassans, Rosa de Tivoli, &c. first painted their pictures in distemper, or colours mixed with white of eggs, size, or glue made of parchment; and afterwards, when the effect of the intended picture had been well made out with black and red, mixed to a shade tint and white, their pictures were finished by working over them with colours ground in oil, transparent, or opaque, as they might be required, and lastly a strong varnish over the whole; a method of painting possessing some advantages, worthy of much consideration before the practice can be condemned: for there is an inherent vice, the chief fault attendant on all paintings done wholly in oils, which is, the constant tendency they have to

darken with age; nor can the greatest care entirely remove this defect, a defect so strongly marked in many old paintings, that it is with the greatest difficulty the subject can be made out. To prevent this tendency to darkness, much attention must be paid in the colour-grinder's department; the colours used must be only such as have well established their reputation for permanency—the oils are to be of the purest kind, avoiding linseed oils; the gums, &c. called vehicles, should be very sparingly used, for wherever colour is thrown out of use for the introduction of varnishes and vehicles, it is impossible such pictures can have the durability of solid paint which has been finely ground, nor is it surprising that such pictures very soon give way to the inevitable ravages of time. In this respect water-colours have a decided advantage; they contain little more of extraneous matter with regard to their bulk, or quantity, than will entirely evaporate whilst working, and thus never grow darker with age, as is shewn by the state in which we find the miniatures and other ornaments of very ancient missals and other manuscripts (some perhaps nearly nine hundred years old), which appear to be as perfect as when first done; and as the same colours are used both for oils and water-colour painting, there can remain no other reason than the one given above for the difference in their endurance, as the only seeming objection which can be offered, *viz.* the different manners in which manuscripts and oil paintings have been preserved (the former shut up from the air and the latter exposed), will not hold good; for it has been found that

oil paintings darken more rapidly by exclusion from air. In short, we cannot see any good reason why a painting in oil might not be so wrought as to preserve its tints in as great a state of purity, or very nearly so, as when first executed. Many excellent paintings by the old masters are yet in a high state of preservation; but perhaps it is only in the lights that the tints are to be found in their original purity—the shadows, without doubt, have grown deeper; and hence that forcible effect which their best pictures possess. The lights of the best paintings of the ancients have been invariably painted with much solid and opaque colour, and of course would receive the most attention from the cleaners of pictures, being so well calculated to resist the usual appliances; on the contrary, the shadows being most frequently painted in with transparent colours, and not so able to bear much cleaning or rubbing, &c., have without doubt been more frequently neglected, especially as the depth they continued to acquire by age was found to add considerable brilliancy to the lighter parts of the painting. Thus it cannot be recommended that the artists of the present day, particularly if using colours with much vehicle, should paint their shadows with all the power and depth of the older masters' works in the state in which we now have them, but rather to leave something to the deepening effect of time.

## CHAPTER I.

### ON PENCILLING OR HANDLING.

THIS is the mechanical use of the pencil, or brush, and shows more or less the degree of proficiency that has been made by the artist in the use of his materials, as well as the power of adapting certain modes of pencilling to express the different textures of objects, as the qualities of earth, stone, wood, water, &c.; in brief, every object in nature, remembering that pencilling abstractedly is little or no more than a manipulation, or dexterous use of the fingers; the art of painting consisting altogether in a highly wrought theory made visible by the hand and pencil, as the poet, by the instrumentality of his pen, makes known to us the imagery and conceptions of his mind. And it would appear that the Greeks, from the earliest times down to the more polished eras of their existence, had entirely the same idea of the art, their most copious and refined language possessing but one word to express both writing and painting.

Pencilling may be divided into two kinds—*viz.* the bold, which is suited for despatch, requiring great knowledge of drawing, as well as of the materials used in painting; and the smooth or finished style of pencilling, the opposite to the first mentioned.

Of both these modes, we find excellent specimens in the Flemish school, from the slightest sketches of Reubens to the microscopic representations of Vanderheyden and Gerard Dow; and the subject or size of a picture alone can determine which mode is to be preferred. Perhaps, among the uninformed, more admirers might be found for the highly finished pictures of Vanderwerf, Vanderheyden, Van Hysum, Van Os, Gerard Dow, Mieris, and many others; yet the bolder styles, in the hands of a master, hold so high a rank, that no comparison can be instituted between them.

When we regard the works of those who have excelled in the various manners, we seldom or ever wish that they should have been otherwise; for if we compare the exquisitely finished cattle pieces of Berghem and Wouvermans with the bold and embossed style of Rosa da Tivoli, one cannot well imagine how either could be converted into the other without serious detriment; and the imitations of Rosa da Tivoli by Berghem or Wouvermans would be as little desirable as the imitation of the latter by Rosa da Tivoli, had such imitations ever taken place, for the completeness of character and manner would have been absent in all; and as it constantly happens that every artist falls into a manner of his own, or style of painting as peculiar to himself as his own hand-writing, the best advice we can offer is, to cultivate that style or manner to the utmost, by discarding whatever is trite or vulgar, and to regard his pencilling as a refined symbolic writing, to be as much under his command,

when painting, as his pen in writing, avoiding, most carefully, that idle and common-place style that some fall into by adopting particular flourishes of the pencil to express particular things.

That the pencilling should be suited to the subject is evidenced by the pictures of Salvator Rosa, where we find in the savage scenery and accompanying banditti, a bold and rough style of pencilling well suited to the intention of the artist in what he had to express; but this manner would not so well suit the beautiful and placid scenery of Claude Lorraine, as his own more finished and quiet happy manner. But again, this finished style would be out of place in very large pictures, which, on account of their size, must be seen from a distance; for these a bolder or coarser mode of pencilling is better adapted, in order to preserve the effect of the whole; yet the young artist should never be so far led away by his desire to display spirit as to leave the mark of the brush every where visible. A picture wrought throughout in what is called a spirited style, frequently reminds one of those inferior compositions in music where the whole force of the band is started at once, and continued to the end of the piece, leaving the auditors astonished, confused, fatigued, and in a great state of thankfulness that it is all over. The great drum and trumpet in their proper places are not only welcome, but animating; yet one would not choose to have these instruments in full play through the whole performance. The artist must manage his style as he manages his effect; use both in their full vigour when

the subject demands it, and at no other time—he must let the eye have some respite or repose from vigorous pencilling, as well as in other things, or his talent may be more than thrown away—it may be employed to fatigue the spectator, and this is most likely to happen when the artist conveys too much pencilling into distant objects, where they ought rather to lose their distinctness ; by too much pencilling they lose their distance, and the finish, by throwing them out of place, brings the objects into a nondescript condition, neither belonging to distances for want of air, or to foregrounds for want of size.

In carrying forward his work, the young artist will find that a chastened (not a subdued) mode of using his materials will advance a picture more quickly than the dashing manner too often affected ; he must endeavour to think with the point of the brush, and at all times be willing to sacrifice the beauty of pencilling to higher excellences ; when these are attained, the brush immediately, and without either thought or care, adapts itself to their creation on the canvas, and often the well-practised artist, when asked how he has produced such and such appearances, becomes not a little puzzled to answer, having been absorbed more in the mental than the material part of his formations.

In the works of Leonardi da Vinci we see a very great delicacy of pencilling ; and also in the paintings of Correggio, the same or superior lightness of hand is visible, as well as in the works of Giorgione. In Titian, Tintoretto, Paolo Veronese, Reubens, and the Burgognones,

&c., we find a bolder style of pencilling; and again increased in vigour in the works of Lanfranc.

Many artists, by copying others, have so far lost the originality of their own styles, that their works are with difficulty ascribed to the right owners; a few we find enumerated by Richardson in his Theory of Painting, published in 1773. He names the following, as so nearly resembling each other, that they cannot easily be distinguished:—Timoteo d'Urbino and Pellegrino da Modena imitated Raphael. Cæsare da Sesto, Leonardi da Vinci, Schedone, Lanfranc, and others, imitated Correggio. Titian's first manner was very like that of Giorgione. Gio. Battista Bertano followed his master Giulio Romano. The sons of Bassano, and those of Paperotto, imitated their fathers. Romanino, Andrea Schiavone, and Giovanni Battista Zelotti, severally imitated Titian, Parmegiano, and Paolo Veronese. Biaggio Bolognese imitated sometimes Raphael, and sometimes Parmegiano. Reubens was imitated by Abraham Jansens; and Vandyke, by Long John, in history, and Guildenaisel, in portraits. Masam followed Giusseppino; and Ciro Ferri, Pietra da Cortona. There is a great resemblance of Michael Angelo in some of the works of Andrea del Sarto; greater in the hands of the two Zuccaroës; and greater yet in those of Maturino and Polidore. Richardson describes Raphael as having had three manners, differing from each other, which he calls his Perugino, his Florentine, and his Roman manners, in all which the great genius of Raphael is visible; but having in his two first manners

raised himself above all competition, the rivalry afterwards was only between himself in his earlier and later manners.

As it is not necessary here to describe in what way these manners varied, but merely to show how the greatest masters occasionally changed their styles, sometimes from an indifferent one to another much better, and at other times from a good style to one much inferior, which again perhaps has been exchanged for the better, we shall merely continue the list of a few more names, as we find them in the same author, without any other comment than what he offers, being quite sufficient to serve as a necessary suggestion on the value and use of carefully examining and sedulously noting the excellences and defects of styles or different manners of the older masters. The different kinds of works in which they were engaged makes a great variety in their various manners. "Parmegiano, in his drawings, appears to be a greater artist than in his paintings or etched prints. Polidore, upon paper, or in chiaro-scuro, is one of the foremost in the school of Raphael; but give him colours, and he is removed back many degrees. Battisto Franco's drawings are exquisitely fine, his paintings are contemptible; even Giulio Romano's pencil in oil has not the transcendent merit of his pen in drawings, which have a spirit, a beauty, and delicacy inimitable; but his paintings are comparatively heavy and disagreeable for the most part, yet there are some exceptions.

The subject also makes a vast difference in the works of these great men. Giulio Romano was fitter to paint

the son of Saturn than the Son of God ; as Michael Angelo was better qualified to paint a Hercules and Anteus, than the Last Judgment ; but Parmegiano and Correggio, who were prodigies in all subjects that were lovely and angelical, would have been almost on a level with common men in either of those other ; a Holy Family by Raphael is as the work of an angel of the highest order ; a Slaughter of the Innocents by him seems to be done by one of the lower.

It is no unusual thing for masters to go from one manner to another which they prefer, whether to imitate some other masters, or for other reasons. Spagnoletti commenced well, imitating Correggio with great success. This good manner he forsook for the one he is so well known by, and which he continued to the last.

Giacomo Pantormo, from a good Italian, fell to imitating the coloured style of Albert Durer ; Giacinta Brandi left his first Caravaggio manner, in which he was an excellent master, and applied himself to its direct opposite, that of Guido, in which not succeeding, he endeavoured to return to his former way of painting, but could never regain the ground he had lost. Even Guido himself, *animus meminisse horret !* for a time quitted his lovely angels, airs of heads enlightened with the gleams of Paradise, for the debauched, savage, and fierce oppositions of the lights and sombrous shades of Caravaggio ; but his native purity soon cleared him from those black and cold Tartarian dregs.

Frequently the older masters copied ideas from each

other, and not whole pieces, and kept to their own manner of executing it; this was frequently done by Raphael after the antique: Parmegiano and Battisto Franco thus copied Raphael and Michael Angelo, and so Reubens copied Raphael, Titian, Pordenone, &c., of which there are many instances. In these cases, although the master will be very evident, yet being mixed with the ideas of other men, this compound work will be very different from one entirely his own."

In concluding this portion of our work, we must express how much and how cordially we agree with Mr. Richardson in his condemnation of the Caravaggio style, and he has reason for saying that the mind is horrified in remembering the lapse of such an artist as Correggio, although but for a short time; nor can we forbear strongly to recommend to the young artist the cultivation of those styles which lead to happier feelings; or, if his taste should point to the wilder manners, at least not to fall into the sickening representations of disease and death by a morbid choice of style, but rather to choose the animation of masters who, in their wildest moods, stopped short of those ghastly representations of the human figure so peculiar to Caravaggio, Spagnoletti, and some others who seemed to delight in subjects, and modes of expressing them, that revolt and disgust the feelings of every well-ordered mind, and which, instead of either yielding instruction or amusement, debase and vilify the human heart, by showing that they themselves, if no others, could delight in such scenery.

## CHAPTER II.

### ON LANDSCAPE PAINTING, &c. IN OIL.

THE term Oil Painting, includes a large number of varnishes, solvents, gums, and other things called vehicles, used for the adaptation of the colours to their several purposes.

Many artists paint altogether in some of the varnishes, some in a composition of mastich varnish and oil, called Macguilp (from the name of the inventor). Ibbetson was partial to an invention of his own, a mixture of sugar of lead and gum mastich, which certainly in his hands (the author having frequently seen him paint) appeared to give very great facilities towards finishing a picture at the first painting, by which mode the greatest transparency is preserved; but whether from this cause, or others united with it, his pictures have changed much from the bright and cheerful hue they always had when fresh from the studio. His mode of commencing was to make out the whole of the subject in light and shade upon a tan-coloured ground with Vandyke brown, in water colours, giving some degree of finish to the figures and foreground objects with the brown; this he was enabled to do by using (in water colours) burnt sienna mixed with a little gall for the tan-coloured tint, first laid on the prepared

cloth or pannel ; the gall makes the water colour adhere to the oil ground of the pannel, and upon this the Vandyke brown works as freely as on paper ; these brown shadows, when worked over with semi-opaque greys, and other transparent, or semi-transparent colours (oils), gave an extraordinary richness to the foregrounds and middle distances of his pictures.

To proceed methodically with a picture in oils, we can only follow one routine, as far as the mechanical part is concerned, *viz.* to let the first painting be solidly dry before the second course is laid on—this again must be allowed sufficient time to harden before the third and finishing paintings are applied ; and in all retouchings, glazings, varnishings, &c., the picture must be allowed much time to harden, or the colours will rub off by the applications of oils, &c. necessarily used in all the after paintings ; this should be well attended to in frosty weather, when colours refuse to dry that at other times dry exceedingly well ; but fortunately a warm room is generally a sufficient remedy for this inconvenience.

Spirit of turpentine is used by almost all, more or less, but when too freely, the colours lose their adhesive property, and much of that transparency essential both in oil and water colour paintings. This quality, so desirable, is much too frequently gained by glazing, *viz.* passing a very thin or transparent colour over another brighter than the glazing colour, with some mucilaginous matter, as gums, &c. to prevent it from running down the picture, or leaving the place assigned to it, as well as to preserve

the forms given to the glazings. It is true that we cannot entirely discard this process, but it should never be used when other modes might answer the purpose, for the very small body of colour in all glazing tints, not only makes them liable to changes of various kinds, but also the tints laid on by glazing, and upon which the artist rests for some of the greatest perfections in colouring, are the first to come off whenever the picture is cleaned; for the above reasons, (and they are of some weight,) it is infinitely preferable to obtain transparency by solid painting, as is done in the best water colour paintings, instead of glazings, wherever it is possible. If, for example, a broad mass of shadows occur on or near a foreground, the place where the greatest transparency of shadows is required, let it be wrought out by once painting, having the colours well ground, and finely mingled together by the spatula or pallet knife, so as to require not much stirring or mixing with the brush: let these shade tints be laid on as evenly as possible, and show more or less of the ground of the pannel by *driving* the colour more sparingly in the places where it is desirable that the ground should appear in some measure; and when these flat masses are dry, oil the picture as directed in another place, and then paint in the details, with all their proper hues, upon the flat shadows, making all the tints of lights, half lights, or deeper shadows, as nearly as possible of their proper condition. There is this great advantage in the above method, *viz.* that the general shade tints cannot be sullied; for if the finishing colours should be laid on in some places

unsatisfactorily, they can be rubbed off and changed without disturbing or soiling the general mass of shade tint.

The first painting, usually called the dead colouring, should have all its tints laid on the canvas or pannel in a firm and clear manner, without much mixing by the brush ; this prevents a certain turbid or muddy appearance that colours have when much disturbed, and laid on by the brush instead of the spatula, or pallet knife, as if their brilliancy left them in a ratio corresponding with the disturbance they receive. Every artist should have standing near the easel (a frame on which his picture is placed), at his right hand, a slab of ground glass or white marble, on which to prepare his tints to a proper colour and consistency before they are transferred to the palette ; for whatever the subject may be, a first painting, when a second or third are to follow, should have a brilliant style of colouring, light, and rather gay, and as nearly as possible without cold colours, these being best and most conveniently added towards the completion of the picture, particularly as it seems to be the natural tendency of finish to cool down and subdue the brightest colours ; even in the coldest-coloured pictures we begin brighter than the picture is to remain when finished. Whenever, in the first painting, parts may have been so fortunate as to be perfectly right in hue, those places must be sedulously exempted from farther re-touching, as they will always have the greatest transparency and beauty ; hence it is plain how much we ought to strive to come as nearly right in the first painting as may be within possibility.

It would appear from the practice of the best artists,

both ancient and modern, that skies, shadows, and reflections in water, and, in short, shadows every where, are best when painted at once, or so nearly finished as not to require much re-touching afterwards.

In the works of the Flemish masters, whose colours and shadows are more near to nature than those of any other school, we see a degree of purity and clearness that can only be surpassed by nature ; there is a light and purity in their deepest shadows that permit a refined distinction of objects separated from each other as clearly as we find them made out in the shadows produced by natural daylight. This clearness appears to be attained by an extraordinary care in the preparation of their colours, and a small addition of some vehicle, or perhaps wholly without, as we have seen the same results produced in the works of one of the best flower painters in oils of the present day, which, for exquisite pencilling and transparency of shadows, and purity of colours, cannot be surpassed ; and we know that this artist (a lady) used nothing in her colours but nut or poppy oils, and a very small portion of sugar of lead, and painted on a white ground ; but this careful method will not suit where despatch is necessary ; the colours must be there less finely ground, and laid on with abundance of vehicle, in order that they may keep their forms and places on the cloth ; but such pictures are not for remote posterity—fifty or a hundred years will throw them out of all the dangers of criticism, and their places will be left vacant for other essayists and candidates for ephemeral or permanent fame.

Many of our living artists show by their works their

*modus operandi* to be one of great care, and laudable anxiety that their pictures should descend to future ages. In those pictures we see the methods used that we have recommended above, to which they add a quiet and less labourered style in the shadows, which thus become agreeable reposes for the eye, and give additional value to the brilliant and opaque lights, when the pencil is at liberty to return and finish as long as any thing of value can be added to them, the power of lights being generally in proportion to their opacity and substance, the very opposite qualities of shadows.

It often happens, when too strong a varnish or vehicle has been used, that the colours set and dry in ridges (particularly in warm weather), before they can be sufficiently spread or laid even. These ridges are injurious to the future workings, by preventing better forms from having effect when laid over them, and must be removed, either by a scraper, similar to such as are used by the Mezzotinto engravers, or those used for the erasure of writing ; or in places where the whole has to be taken out —that is to say, down to the ground of the pannel, essential oil of spike lavender may be used, a solvent so powerful that nothing in the form of paint or varnish can resist it. Perhaps it need not be observed that the scraper can only be used with most effect when the colours are quite dry and hard.

There are so many ways of commencing a landscape, that it becomes a little difficult to say which is best, to any who may have had much practice ; but in every system

we may say that a well-arranged rule of proceeding is indispensable. For those who have yet to learn, and it is chiefly to those that the present work is addressed, we can easily select a well-tried method of proceeding; one that we know will be the easiest to the tyro, and, at the same time, most certain of success.

We recommend a pannel or canvas with a white ground, the lower part of the ground to be tinted with a light shade of yellow ochre and Venetian red, or a light tint of burnt sienna (commencing in the sky, if the subject is to represent evening), and gradually becoming stronger as it approaches the foreground of the picture; the upper part of the canvas is to be left white. This warm tint may be laid on with water colours and a little gall; when dry, sketch in rather lightly, but in an accurate manner, all the foreground objects with Vandyke brown in water colours; when this also is dry, the painting may be commenced, beginning with the blue of the sky, having previously mixed on the slab a set of tints of all the different hues that are required both for the sky and distances; commence with the upper part of the sky, working downwards, endeavouring to obtain a good gradation of colours, which will be best obtained by taking the tints in the following order: *viz.* From blue into lilac, and from this into white, and again from the white through the yellow tints into orange, rose, and lastly, a rosy purple, if the horizon should be screened by clouds, as when the sun is nearly setting. Another order would be from the blue tint through the lilac, rose tints, into

yellow, and from the yellow into orange, or the sky might terminate with the various degrees of yellow tint. After the sky is laid in, the mountains or distances of every kind follow, using the same tints which have been used in the sky, a little strengthened by the grays, laying in every colour as nearly the hue it is to remain as possible, and growing stronger, and partaking less of gray as we approach the foreground. This will be the most difficult part of the picture, on account of the natural tendency of oil colours to become muddy and opaque, owing to their mixture with white. For foregrounds, all the colours, most particularly the greens, are to be kept as pure and bright as possible, and this can only be done by great care in using the brushes, *viz.* not to employ a brush that holds a portion of tint in it which may have been used for a road or rock, or the lights and shadows of buildings, &c., for the greens, or the opposite ; but to mix on the slab a well-ordered set of colours, and to lay them carefully in their places without confusing them with each other. To do this effectively, it is evident that the outline of the picture must be well defined, and the student would find himself greatly benefitted by making a complete coloured sketch, in oil or water colours, before he commences ; for it is, in painting as in every thing else, of no small advantage to know what we are going to do before we commence.

The after-paintings of a landscape, &c., so nearly resemble the proceedings in portrait painting, that the amateur or young artist will find under that head all that is requisite in the finishing.

Among the landscape painters we find that Wynants, Berghem, Wouvermans, and many others, made use of the warm coloured grounds, approaching the colour of newly tanned leather ; thus, with moderate care, the warm hues so requisite in landscape painting, representing the tints of so many different objects, as earth, wood, stone, brick, &c. were easily preserved ; also transparency and internal light, or what the Italians termed “the light within,” so essentially requisite, more particularly on foregrounds.

Claude and Cuyp, whose pictures for air tint and clear day-light stand pre-eminent, used different modes. The grounds of Claude were of a dull red, and are seldom or never seen through the painting, as he used opaque colours ; hence, their permanency. His pictures appear to have been commenced by painting in the sky at once, or if twice, the first painting has been much lighter than the second ; the clouds seem to have been painted upon the sky whilst wet, being united with it by having their edges a little softened, and this method is at present the most general, except where the lights of clouds are to be made with well-defined edges : these are best produced by being placed when the picture is dry. The shadows of Claude’s landscapes appear to have been painted, as nearly as possible, of a proper tone at the first painting, and to have received their accidental lights, half lights, and more definite marks with the darker colours, when the first painting had become dry ; and this appears also to have been the method used by Salvator Rosa, in that magnificent landscape of his, now in our National Gallery.

The beauty of the air tints, in all the pictures of Claude, is worthy of the greatest attention ; he even brings it forward on to the nearest objects, and by it prevents the picture from seeming to be brought down close to the feet of the spectator, a practice that well preserves the effect of extent and magnitude, the chief sources of grandeur. Teniers (the younger) produced his best works on a white ground ; it is said, that he also had his colours ground fresh every day, by which he gained that particular crispness of touch so admirable in all his works. Some of his pictures were painted on dark grounds, as were also those of the elder Teniers, but neither produced works equal to those painted on white grounds.

It is not true that the Venetian masters always painted on red grounds, although many of their pictures have this colour for their foundation. The white, cream, and light tan-coloured grounds were more frequently tried, and always with such success, that at the present day they take the lead of all other colours. The reasons why these colours should be best are obvious ; they throw a light, and consequent transparency, through the work ; and as all colours in oil painting have a tendency to sink into the ground and become darker, this tendency can only be opposed by a ground of sufficient lightness or brilliancy.

The portraits of Sir Godfrey Kneller, and some few after him, were painted on cold gray grounds, and these portraits, &c. have all the coldness of colouring belonging to such a substratum, and they ought to be a sufficient

warning to every amateur and artist wishing to repeat the trial. A picture by Sir J. Reynolds, of the Holy Family, now in the National Gallery, either from the bad vehicles, bad colours, or being painted on a cold ground, or all these things put together, has such a wretched appearance, especially as it now stands contrasted (September 1837) with the superb and splendid picture of the Holy Trinity by Murillo, placed near it, that one cannot but lament that a man so high in talent should have been led astray in making experiments which have so signally failed, although they must eventually prove of the greatest value to the art, in such manner as the visible wreck of a first-rate more effectually points out the dangers of the coast than a hundred floating buoys.

As a general rule for first paintings, a mixture of good drying oil, and spirit of turpentine, with as little vehicle as possible, *or none*, will be the best method to ensure permanency of colour, the colours to be finely levigated, the ground of the pannel white, cream, light tan, or flesh-coloured ; colours so wrought will in a few years become as hard as marble, will not crack, but preserve an even and firm surface ; nor is it unreasonable to expect that colours in this state, and only in this state of hardness, should be best adapted for resisting the numberless influences to which oil paintings are liable, seldom having a glass before them, often subjected to severe trials in the shape of picture cleaning ; to which may be added, the frequent application of a duster in the hands of a careful or careless servant ; and mild as this last applica-

tion may seem, it would be strange if, from the thousands of such operations as the last, which an old picture receives (however forbidden) in the course of ages, it did not contract some stains or blemishes, more or less varying according to the surface, for however well varnished it may be, the ridges or small inequalities, consisting chiefly of the lightest colours, must in time suffer some, and most often, serious detriment. All these accidents can only be provided against by solid colours, and judging from the best pictures already of considerable antiquity, we should conclude that a level surface (the effect of colours in the highest state of preparation), without the ridges and embossings of paint, too prevalent in some few of the ancient as well as modern masters, are best calculated for endurance, and, if attainable, perpetuity.

## CHAPTER IV.

### ON PORTRAIT PAINTING IN OIL.

THE colour of the pannel, or canvas, upon which the subject has to be painted is of much importance; for it is almost impossible to paint a richly-coloured picture, or a portrait, with any thing of life or warmth in it, upon a leaden-coloured or green ground ; and the same observation holds good in regard to landscape painting : nor can too much care be given to the choice of the ground, which, whatever hue it may have, should be of a warm and light colour, if any other than white should be thought necessary ; thus among the white, cream-coloured, light reds, yellow, pale orange, or tan-coloured grounds, a choice can be made without the risk of falling into the sombre or death-like tints, so generally resulting from the use of the colder colours for the ground of the picture ; and the same care must be used in avoiding all the cold hues in the outset of the picture, for the power of reducing a warm tint to a colder one is much greater than the converse ; a fact of which every artist is made painfully sensible, when he has to restore the brightness and cheerful colours of nature, or the glowing tints of health, to a picture in which all these essentials have been entirely lost or too much neglected.

It is on the purity and proper adaptation of colours that we have to depend for the general character and expression of the picture ; sunshine and gloom—morning, noon, and evening—summer and winter—mirth and sadness—youth and age—health and sickness—with the countless gradations between these opposites, have all to depend for their complete development on the colours and tints employed.

In the portraits of males, whether for historical, landscape, or portraits, it is usual to paint in a warmer style of colouring than for females ; for children a still clearer, and at the same time ruddier style is required ; but whether for male or female, adult or infant, it is certainly in accordance with the best practice, ancient and modern, to paint in all the warmer tints first, and the cool greys and blue tints last.

To select one out of the many different styles of painting as best, and to support it by argument, might be difficult, but it is not difficult to say which style or styles have received the general approbation of mankind, for those that have represented nature under its most agreeable phases or influences, have every where, and invariably taken a very large majority in their favour.

Every style may be classed under three divisions ; the cold, intermediate, and warm : the former, which may be truly called a morbid style, being too much allied to sickness, and the total extinction of life, cannot but be in a great measure revolting, if carried to excess, and always displeasing ; whilst the contrary, containing the warm

tints of life, and blooming health, excite every happy feeling of which our nature is capable ; hence springs that admiration which Titian and the painters of the Venetian school have so liberally received, and which will always be continued. Their pictures possess the glowing freshness of life, and with the brilliant tints and colours of the rainbow, arranged in harmonizing variety, or in opposition, they produced a splendour and effect that has too commonly been attributed by the unreflecting to the colour of the ground on which they painted.

The first paintings of the human figure, or face, are most easily managed by using a shade tint made of Venetian Red and very little Black ; and for the lights a mixture of Venetian Red and White, mixed into two or three different degrees of intensity. With the shade tint let all the shadows of the face or figure be carefully made out, using the light tint above-mentioned to vary the depth of the shadows, by working it into them, and let all the colours be very sparingly laid on the canvas. The light tints must be united with the shadows, so as to produce the middle tints ; after these the deepest shadows are to be placed with a due regard to their proper position : these shadows should be made of Indian Red and Lake, very sparingly used, then with a moderately large brush, made of badger's hair, called a softener, unite and soften all these tints into each other, by passing frequently over the whole, in every direction, reducing the surface to a level by destroying the marks of the brush, and thus giving greater transparency to the tints.

The shade tint made of Venetian Red, White, and Black, agrees so well with White, and the light tints made with Venetian Red and White, that any alterations may be made, if done before the introduction of the Indian Red and Lake, without disturbing or soiling the purity of the tints, and the whole will have a warmth and clearness that will well and solidly support the after paintings. The student should bear in mind, that if frequent or many alterations have to be made in the first painting, the lights may become of too low a tone, which would be an injury to the picture; therefore too much care cannot be taken with the colours of a first painting.

When the student has had sufficient practice in this method of commencing his portraits, he may, as his facility increases, commence with a greater variety of colours, and from the first follow Reubens' advice to his pupils, who says, "Paint your lights white; place next to it yellow, then red, using dark red as it passes into shadow; then, with a brush filled with cool grey, pass gently over the whole, until they are tempered and sweetened to the tone you wish." This process, in the hands of a beginner, would occasion a great confusion, by the general application of the grey, unless the first painting were allowed to become perfectly dry; then, if too much grey were used, it might be taken off with a cloth and oil, and it is safer to understand the above passage in this way. Yet we cannot recommend to the beginner in oil painting that powerful and loaded style of colouring used by Reubens, especially in his highest lights, for much practice must be

had before the amateur or artist can keep so much colour in its place, and preserve its form and purity. When this power is acquired, the works of Reubens, Vandyke, and Correggio, will afford ample lessons, if the student will carefully distinguish between the first and after paintings, so as not to confound them together.

In portrait painting it is particularly necessary that a set of tints should be mixed up previously to the commencement ; this method saves much time and trouble, and the student will then have little more to do than to place them properly on the canvas. The following list will be found sufficiently extensive :—

1. A TINT made with Light Red, or Venetian Red, and White ; this will serve as a general tint for the lighter flesh colours. It may be used with the shade tint (No. 5) throughout the first painting.

2. VERMILLION and White, used alone, for fine complexions, or mixed with the light red tint.

3. CARMINE and White ; this serves for all the carnation tints of the cheeks, lips, &c.

4. RED SHADE is made by a mixture of Lake, or Carmine, with Indian Red ; this is used for deepening the shadows by glazing, and will receive the cooler colours without blemish, if worked into it whilst wet.

5. GENERAL SHADE TINT is made from Indian Red and Ivory Black, an excellent colour for every purpose where it can be used, as in the flesh tints : this may be varied by making it of Venetian Red and Ivory

Black. This mixture, although of great power (and by many preferred), has not the force of the Indian Red and Black.

6. **Rose Tint.** A very delicate tint, or set of tints, may be made, by mixing the red shade (No. 4) with White, and they have the good property of mixing well with all other tints.

7. **Yellow Tint** is made by a mixture of any of the Light Yellows (possessing good qualities), but we have preferred, for face painting, those made from Naples Yellow and White, or Yellow Ochre of the best and lightest kind. When too much yellow has been used, the sickly hue occasioned by it is best removed by a free use of the light red tints over it when dry.

8. **Cool Grey Tint** is made from Ivory Black and White: this is of much use, when properly balanced with other colours, in distances, clouds, white dress, &c., but too free a use of it will give a cold and leaden appearance to the picture.

9. **Blue Tint** is made by mixing Ultramarine or Cobalt Blue and White. This is a valuable tint for the pearly greys of the flesh colours, and should be used in the finishing tints: in short, little or no cold colours should enter into a first painting. When lights have to be cooled down, this is the best colour for the purpose.

The above mixtures will produce as many tints by admixture with each other as the student can want in

painting the flesh colours, but we recommend him to consult the article **MADDER CARMINE**, in the section on colours, which will determine him in the choice of Carmines for the tint No. 3.

There will be wanting, in addition to the above list, many colours for dress, back-grounds, landscape, and other general uses ; as Vandyke Brown, and the Umbers for the hair, and all the darker shadows of back-grounds, &c. &c. The student will find, in the sets of mixed tints near the end of this work, an indication of all the tints that can be wanted for back-grounds of every kind, and where these do not exactly coincide, the approximation will be sufficiently near to point out the colours to be used. If the student will consult the Author's "*Theory of Painting and Index of Mixed Colours*," he will find all the tints coloured, and of various degrees of depth.

In the first painting, according to the method recommended by Bardwell, who published a useful work on the art in the year 1773, in quarto, the student will find that more is done than we have recommended above ; it is certainly better adapted for dispatch, but will require more care, for it is evident that a large number of tints cannot be managed with the same ease as a smaller, and by not going too far in the first painting, and allowing it to dry, the student secures the drawing, and the purity of his first shadows, &c. For this reason we should recommend him to stop where we have left off, at least until he has had some practice in the manipulations of colours. In his first painting, Bardwell's method is simi-

lar to the one we have pointed out, as far as we have gone, but he adds what he calls the “second part of the first painting.”

“In order to finish the first painting, improve the reds and yellows to the complexion, and after them the blues ; observing that the blues on the reds make purple, and on the yellows produce green. The same method is to be understood of the shadows ; but be sure to leave them clean, and not too dark : therefore allowance should be made in their grounds with the light red, because glazing them will make them darker. When the cloth is of a dark or bad colour, there must be a strong body of colour laid all over the shadows, such as will not sink into the ground, but appear warm, and a little lighter than the life ; so that it may be of the same forwardness to finish, as if it had been on a light ground. Therefore the business of dead colouring” (first painting) “is, that we leave it always in the same order for finishing, though the colour of the cloth be quite the reverse.

“I am convinced by experience that the grounds of shadows, in what we call the dead colouring, should be such as will support the character of the finishing colours. I say a little lighter, because the finishing of shadows is glazing, and no other method than glazing can leave such brilliancy and beauty as they ought to have ; for I find that glazing the shadows in the first painting is not so proper as laying a body of shadow-colours that are very near to the life, though a little

lighter. These may be glazed and touched upon when dry with a great deal of ease ; but if we begin the first painting with glazing, we shall find it will stare, and be of no use, and the solid colours which are laid on it will look heavy and dull ; therefore all shadows and colours that are to be glazed should be done with colours of a clean solid body, because the glazing is more lasting and has the best effect on such colours. Remember to leave no roughness, to hurt or interrupt the character of the finishing colours, which, by examining the work whilst wet with a soft brush, or when dry with a knife, to be used as a scraper, may easily be avoided.

“ The Light Red and White improved is superior to all other colours for the first lay or ground, which should always be done with a full pencil, and stiff colour, made brighter than the life, because it will sink a little in drying. The greater the body and quantity of colour, and the stiffer it is laid, the less it will sink. Every colour in drying will sink, and partake, in proportion to its body, of the colour it is laid upon ; therefore all the lights of the flesh, if not laid on a light ground, must consequently change a little from the life, if there is no allowance made. The shade tint for the shadows should fall into the rose tint as the complexion becomes delicate, all which should be lightly united with a soft, long-pointed hog-tool (or one made of badger’s hair) to the lights, making out the whole like a Mezzotinto.

“ I believe the great masters very seldom sweetened or softened the colours, but in uniting the first lay, they

were very careful in preserving the brightness of their colours, and therefore did not work them below the complexion. For to force or keep up a brilliancy in the grounds, can only be done with the whites, reds, and yellows; which method will make up for the deficiency of the white grounds;" (this is a little obscure). "Therefore, the first painting should be left bright and bold, and the less the colours are broken" (*viz.* mixed after being transferred to the canvas) "the better. We should forbear using any colour that will prejudice them, and be contented to add what is wanted the next painting, where, if we fail, a clean rag will restore the first ground."

As the *modus operandi* throughout has been so well laid down by Bardwell, we shall continue our quotation to the end of the picture, convinced that, generally, it agrees so well with the best methods, that we cannot do better than to give it in his own words, and without abridgment, with one or two necessary observations on what he has omitted.

*"The second Painting.*

" Before the second painting is commenced, and every other succeeding it, after the surface has become dry (which is discoverable by breathing on it, the dry parts becoming dull, as if covered with a mist, whilst the portions still wet retain their original gloss), the picture should be rubbed first with a damp cloth or sponge, and afterwards with a small quantity of poppy oil, in order to make the after-paintings unite with the first, and thus to create an appearance of having been all done at the same

time. No oil is to be left on the picture but what adheres to it after as much has been taken off as the moderate application of a piece of a silk handkerchief or sound piece of linen will perform; cotton or old linen would leave portions of the lint or down, both injurious.

“ It may be here remarked, that a few particular appearances in finishing are best obtained by omitting the oil; but the sponge or damp cloth is always required, for without it the picture would resist the new colours, sometimes so strongly as to make it quite impossible to proceed, or cover even the smallest space, especially for glazings.

“ The second painting is divided into two parts: one I call the first lay of the second painting, which is scumbling the lights, and glazing the shadows: the other, finishing the complexion with the virgin tints, and improving the likeness as far as we can without daubing.

“ Scumbling is going over the lights, where they are to be changed, with the light red tints on some other of their own colours, such as will always clear and improve the complexion, with short stiff pencils; but such parts only as require it; otherwise the beauty of the first painting will be destroyed, and we make ourselves double work.

“ The light red tint improved, is the best colour for scumbling and improving the complexion in general. Where the shadows and drawing are to be corrected, we should do it with the shade tint, by driving the colour very stiff and bare, that we may the easier retouch and change it with the finishing tints.

“ Some parts of the shadows should be glazed with some of the transparent shadow colours, such as will improve, and come very near to the life ; but be sure and not lay on too much of it, for fear of losing the hue of the first painting, the ground of which should always appear through the glazing. Be very careful in uniting the lights and shades, that they do not mix dead and mealy ; for the more the lights mix with the shadows, the more mealy those shades will appear. Thus far the complexion is prepared and improved, in order to receive the virgin tints and finishing touches.

“ *The second Part of the second Painting*

“ Is to go over the complexion with the virgin tints ; these are the colours which improve the colouring to the greatest perfection, both in the lights and shadows. This should be done in the same manner as we laid them in the second part of the first painting, that is, with the reds, carnations, yellows, and blues ; blending them with delicate light touches of the tender middle tints, without softening. We should leave the tints and these grounds clean and distinct, and be content to leave off whilst the work is safe and unsullied, leaving what is farther required for the next sitting ; for in attempting the finishing touches before the other is dry, we lose the spirit and drawing, and dirty whatever we touch.

“ *The third Painting, or Finishing.*

“ It is to be supposed the complexion now wants very little more than a few light touches ; therefore there will be no occasion for oiling.

“ Begin with correcting all the glazing ; first, where the glazing serves as a ground, or under part ; then we should determine what should be done next before we do it, so that we may be able to make the alteration on the part with one stroke of the pencil. By this method we preserve both the glazing and the tints ; but if it happen that we cannot lay such variety of tints and finishing colours as we intended, it is much better to leave off while the work is safe and in good order, because those few touches which would endanger the beauty of the colouring may easily be done, if we have patience to stay till the colours are dry, and then, without oiling, add those finishings with free light strokes of the pencil.

“ I believe that Rembrandt touched upon his best pictures a great many times, letting them dry between ; it was this method most certainly which gave them that surprising force and spirit, which is so inimitable.

“ I find it much easier to soften the over-strong tints when they are dry than when they are wet, because the very colours can be added which are wanting without endangering the dry work.”

In the above extract, it is evident that Bardwell writes like a practical man, and so much useful matter is contained in the whole, that although lengthy, we feel no hesitation in laying it before the young oil-painter, as a foundation on which he may safely construct any other mode more agreeable to his taste or inclination ; but whatever method he may fall into, it must be that of system, otherwise he will find oil-painting amongst the most

intractable (practically speaking) of the arts. Nor must we forget to remind him of a circumstance already alluded to, but which cannot too much be enforced, namely, to make the proper allowance for the change of tints by drying, and which change is effected by a double operation : firstly, by the white (the heaviest in the mixture of tints) falling to the cloth, and leaving the lighter colours on the surface in the incipient process of drying ; and secondly, by the surface of every tint and colour drying, in the course of a few months, and often in a few days, with a surface covered by an infinity of wrinkles, particularly where any body of colour has been used. These absorb the light, therefore such a surface, holding shadows in each wrinkle (even when not visible to the naked eye), must have a greyer hue than when first laid on the cloth, and we think that the beautiful surface, as well as purity of light, which we often see in old pictures, must in many instances have been produced by allowing much time after each course of painting, so that when perfectly hardened, the artist might be enabled to take off a small portion of the surface, and see better what would be necessary in the future retouchings ; nor is it at all improbable but that very many second-rate pictures have benefited by the several scourings that in a lapse of ages such pictures invariably receive from the class into whose hands they are liable to fall, and the retouchings consequently necessary after such severe cleanings, which in frequent instances have been added by artists of much greater talent than the original painter.

An amiable and highly talented female artist, whose best works are in oils, has assured the author that she never could obtain the brilliancy and finish which she felt to be requisite, and in which her works excelled, without taking off the surface of the first painting after it had become hard. This was done with exceedingly fine glass paper, that had been previously so well used as to take off much of its sharpness, so as to prevent the possibility of scratches, or too much of the surface being carried away. This lady often finished, or very nearly, her works (flowers, fruit, insects, &c.) at the first painting, and always either on a white or lemon-coloured ground, which sustained with extraordinary brilliancy all the crimson, scarlet, and yellow tints—in short, every colour, except the blues, violets, and absolute whites.

## CHAPTER V.

### ON BACKGROUNDS, &c.

THESE in portraits are of greater importance than some imagine ; they are equally important in historical subjects, and we have in the following, taken from the works of Sir J. Reynolds, the opinion of an eminent artist on this point. “ By a story told of Reubens, we have his authority for asserting, that to the effect of the picture, the background is of the greatest consequence.

“ Reubens being desired to take under his instruction a young painter, the person who recommended him, in order to induce Reubens the more readily to take him, said that he was already somewhat advanced in the art, and that he could be of immediate assistance in his backgrounds. Reubens smiled at his simplicity, and told him that if the youth was capable of painting his backgrounds, he stood in no need of his instructions ; that the regulation and management of them required the most comprehensive knowledge of the art. This painters know to be no exaggerated account of a background, being fully apprized how much the effect of the picture depends upon it.

“ It must be in unison with the figure, so as not to have the appearance of being inlaid, like Holbein’s

portraits, which are often on a bright green or blue ground. To prevent this effect, the ground must partake of the colour of the figure ; or, as expressed in a subsequent line, receive all the treasures of the palette.

“The background regulates likewise where and in what part the figure is to be relieved. When the form is beautiful, it is to be seen distinctly ; when, on the contrary, it is uncouth, or too angular, it may be lost in the ground. Sometimes a light is introduced, in order to join and extend the light on the figure ; and the dark side of the figure is lost in a still darker background ; for the fewer the outlines are which cut against the ground, the richer will be the effect, as the contrary produces what is called the dry manner.”

To the above extract from Sir J. Reynolds, we must add another extract from Bardwell, the value of which is principally for the practical instructions conveyed by it. He wrote and published his observations on painting before the written works of Sir J. Reynolds had appeared.

“We should begin with the lights first, from them go into the gradations and shadows, which should be done with a large stiffish tool, and very sparingly with the dark shade and white, a little changed with the colours that will give it more of the required hue, but very near in regard to tone and strength, leaving them like Mezzotinto.

“The dark and warm shadows should be laid before the colours that join them ; this we should do with the dark shade (Black and Indian Red) and Umber drove (spread thinly on the cloth) with drying oil : I say before

the colours that join them, because if those colours were laid on first, they would interrupt and spoil the transparency, which is their greatest beauty. The more the first lay is drove, the easier and better we may change it with the finishing tints; therefore we may lay them with the greater body.

“The second part is to follow directly, whilst the first lay is wet, with those tints we think to be the most proper for harmonizing and finish.

“Begin with the lights first; and remember as we heighten and finish them, we do it with warmer colours, and let those be accompanied with fine, tender, cold tints. The lightest part is generally nearest to the shadowed side of the head; this is the part which governs all the rest, and should be painted with a variety of light, warm, clear colours, which vanish and lose their strength imperceptibly in the gradations; these should be laid with a kind of a cloudy touch rather than spotted; and we must take care that we do not cover too much of the first lay, but consider it as the principal colour.

“From the lights we go to the gradations and shadows; for when the lights are well adapted to produce and to support the head, it is easy, I think, to fall from them into whatever kind of shadows we shall find most proper for our work; then soften and blend the whole with a large, soft hog’s-hair tool, which, with the strength and body of the drying oil, will melt and sweeten all together in such a pleasing manner, that it will seem surprisingly finished.

“ Remember the tints will sink, and lose a little of their strength and beauty in drying. All the grounds, as walls &c., should be finished at one painting ; but if they require to be changed, we may glaze them with a little of the dark shade and drying oil, drove very sparingly on, which, with a few light touches of the colour that is wanting, we may improve their hue. The dark shadows may also be strengthened and improved by glazing, which should be done after the figures are near finished, for fear of making them too strong.

“ Rembrandt’s grounds are rather brighter in the lights, and have more variety of tints, than any other painter’s ; and certainly he had observed, and justly too, that those tints diminish in proportion with the lights ; therefore his shadows have but a faint appearance of tints. He understood the gradations in perfection, by mixing and breaking the first lay of colours so artfully, that they flatter us in regard to their real strength.

“ Fresnoy says, ‘ Let the field, or ground of the picture be pleasant, free, transient, light, and well united with colours which are of a friendly nature to each other, and of such a mixture, that there may be something in it of every colour that composes your work, as it were the contents of your palette.’ De Piles says, ‘ Variety of tints, very near of the same tone, employed in the same figure, and often on the same parts, with moderation, contribute much to harmony.’

“ All the curtains should be dead coloured when we paint the ground, and should be done with clean colours,

of very nearly the colour of the intended curtain, such as will support the finishing colours. Do it with a tender tone of colouring, and near in regard to their tone in the lights, but much softer in the shadows ; all which should be mixed and broken with the colours of the ground, and, as Fresnoy says, bodies that stand back in the ground should be painted with colours allied to those of the ground itself. It will often happen, that for want of the life, or some design, that we cannot make the folds in the first painting ; we should then leave the masses of light and shadow, in regard to the keeping of the picture, broad and well united together, such as may seem easy to finish on. The colours of the landscape in back-grounds should be broken, and softened also with those of the parts which join them. This method brings them into keeping, which will make all the parts of the ground as it were of one piece, so that the different parts do not stand out too prominently.

“ The sky should be broken with the lead and the flesh tints ; the Murrey tint (Indian Red and a little Black, and White brought to a purplish tint) is of great use in the grounds of distant objects, and the Umber and dark shade in the near grounds ; the Greens should be more beautiful than we intend them to remain, because they will fade and grow darker. After all is painted, we should go over the whole very lightly with the softener, as we did the grounds, which will make it look agreeably finished.”

Before we add the concluding portion of the above extract, we must observe, that the brightest greens are

produced by painting them very much lighter than they are to remain, and then glaze them down to their proper hue, either by Yellows, or Brown Pink, or any mixture of transparent colours that may be suitable ; thus the brightest lights, or greens, and some other colours, are best got by making them perfectly white on the first painting, and then bringing them to their right hue by glazing, with as little oil or vehicle in the colour as possible, to ensure their permanency.

“ Vandyck’s general method was to be very still and mellow, and to break the colours of the ground with those of the drapery. This will certainly produce harmony, the principles of which method belong only to the art of colouring ; but it is the knowledge of light and shade which gives that surprising force to Rembrandt’s works. I have seen a picture of a lady, where he has made the ground just light enough to shew her complexion and hair, which was a dark brown, in the greatest perfection ; the ground was a wall, which near to the face was lighter than the shadows of the flesh, and the light diminished so artfully in the gradations, that though the part round the head was much darker, yet it appeared to be of the same colour with that near the flesh. I must own I like this method of relieving the head from the ground better than Vandyck’s method, where he has made the ground almost of the same colour with the hair ; and though I admire his method of breaking the colours of the ground with those of the draperies, yet I am not so much pleased where there appears too near a sameness,

as I have seen in some of his pictures, where he has carried this principle so near, that it is almost imperceptible. In Rembrandt's pictures, the lights and shades are as visible as those in his prints, and are remarkably broad, clear, and still ; the shadows are very warm and thin, and look as if they were painted all at once with plenty of colour, which appears transparent. This transparency has been obtained by glazing the dead colouring."

The student in painting will do well if, instead of painting too much from his own ideas, he would be content to copy from the best masters in the outset ; he will, by doing so, save years of labour and time. By applying to the masters of the Dutch and Flemish schools, he will find certain principles of colouring which he should unhesitatingly follow, and, as Sir Joshua Reynolds observes, "Painters should go to the Dutch school to learn the art of painting, as they would go to a grammar school to learn languages. They must go to Italy to learn the higher branches of knowledge." Reubens, Vandyck, Snyders, and Jordaens, to whom we must also add Teniers, are the best masters in colouring. In the works of Reubens, the tints will be found well made out, and so detached from each other, that the student can have no trouble in detecting them ; he will find them in their places, standing pure and unsullied, and so systematically arranged, that one of his pictures, to any one who has considered the theory of painting, is in itself a perfect and complete school. In the pictures of Titian, the pupil does not so readily see his way ; their splendour confuses,

and their tints are so richly wrought into each other that their places are only to be found in masses. Although differing from the distinctness of Reubens, the works of Correggio are more easily comprehended than those of Titian ; nor must we overlook the inimitable Vandyck, who, in our estimation, yields to none, and in warmth and delicacy of colouring seems to unite the qualities of his master Reubens with the beauties of Rembrandt, avoiding that solemnity of effect which the latter, by the singleness of his lights, so frequently had.

Whilst studying colours, the study also of chiaroscuro, or effect in light and shade, is not to be neglected ; and the Author must be allowed to borrow a passage from his work on “the Theory of Painting and Index of Colours,” second edition, published 1836, in order to give the student a general idea of the effect which is to be sought for through the agency of light and shade.

“ It is the intention of a good picture to tell its story distinctly and intelligibly, avoiding all things that will disturb the attention. This, without a good knowledge of chiaro-scuro, cannot be done ; for, unless the artist strictly adheres to the leading principles of this department of the art, his labour will be thrown away. His first endeavour must be to obtain unity of light and shade, by so massing his lights and agreeable colours on the chief part of the picture, that the eye may dwell on it with undisturbed satisfaction.

“ If in a picture, a variety of objects are given of equal light, and scattered at regular intervals over the piece,

it approaches in some degree the nature of a chess-board, where the alternations of black and white are so exact in size and power, that the eye wanders over the surface, finding not a single point of interest on which it can rest. The quantity of dark shade usually allowed in painting is about one quarter ; another quarter is allowed for light, and the remainder for middle tint. But this rule is not absolute, depending on the nature of the subject, and the impression to be conveyed. Rembrandt allowed a much greater proportion to his dark tints, in order to gain the greatest possible brilliancy for his lights ; and he carried his method so far, that the spectator is frequently impressed, on beholding many of his works, with the idea of a dungeon into which the light penetrates with difficulty, throwing an expression of sadness over the whole, sometimes unsuited to the subject, and always depressing to the feelings.

In many excellent pictures we see the greatest part occupied by middle tint, with very little of positive light or dark : and in others we find a preponderating quantity of light. Each of these methods is, of course, intended to convey particular feelings or impressions.

It is considered necessary to have two or three groups of light ; but they must be varied in their size, form, and degrees of power, and the breadth of the shadows is to be so well preserved, that they may serve as places of repose to the eye, separating the groups of chiaro-scuro from each other.

Frederico Baroccio, Carlo Bonone, Guercino, the Car-

racci, and others desirous of rivalling the great variety of tints which Correggio has employed, and so exquisitely blended by his pencil, depended to such an extent on the proper distribution of light and shade, that in order to obtain an accurate composition in their chiaro-scuro, they followed the method used by him, in forming small statues of clay or wax, arranging the positions, attitudes, and foldings of the draperies, grouping them according to the disposition they were to hold in the picture, and lastly, subjecting them to an artificial light, in order to choose the best effects.

When unity of light is carried to so great an extreme as we often find in some of the pictures of Rembrandt (magical as they all are), repose is almost lost by the eye being continually recalled to this isolated light, and it is to prevent this singleness, that other groups of light are admitted. If the secondary light be made of nearly the same strength as the primary, it should not approach it in size; and again from these should be spread out those accidental lights which prevent monotony in the shadows, add interest to the portions of the picture which without them might become insipid, and make the reposes useful in carrying forward the story, or in giving episodes in character with the whole.

By the term ‘repose’ is simply implied those parts of the picture, either in deep shadow or middle tint, where lights, shadows, and colours are so subdued, that the eye can rest upon them without fatigue, after the excitation produced by the brilliancy and effect of the principal parts.

However objects may be scattered throughout the picture, they are to be so grouped and collected together, that although each is to have its particular light and shadow, yet the lights should generally mass together, as well as the shadows. To illustrate this, Titian refers to the effect on a bunch of grapes, where each grape has its own light and shade, yet it forms only one member of a mass considered as such, has only one light side and one dark, causing an unity of effect that is always agreeable.

It is by masses of light that the eye is prevented from dissipating its powers in a vague and unsettled wandering over the surface of the picture ; and we must endeavour to fix it by a satisfactory combination of chiaroscuro, by harmony and contrast of colours, and by opposition of shade tint, or of obscure colours which may have the same effect, sufficiently wide to prevent the masses of light from crowding into the eye, at the same time making what is called a repose between the lights. These groups of shadows are to be so managed that the unity of light may be preserved.

A picture may be considered as a collection of *foci*, or points of vision, holding their places in a series of gradations, and subject to one great controlling focus, the centre of effect, itself composed of innumerable *foci*, of various colours and degrees of light. These united make the chief light ; the second and tertiary are to be subject, and inferior in power as they descend in the scale of the great total, and their minor or accidental lights should be so arranged, that they do not hurt the breadth or repose

of each mass; so that we might almost pronounce each collection of light in itself a whole picture, but, by its connexion and subordination, making an essential part of a greater picture. Wouvermans, Wynants, Claude, Cuyp, and many others, finished their works so well in this respect, that any small portion taken out of one of their pictures would explain that it was a portion from the work of an eminent master.

Many of the old masters relieved their subjects so strongly, that the figures, &c. appeared as if inlaid on their grounds. Some of the smaller pictures of Raffaelle, also of Leonardo da Vinci's, and others, are not without this fault; Albert Durer, and the whole of his school, had it in excess. If we cannot have richness of chiaroscuro and detail at the same time, it is better to sacrifice a portion of the latter for the sake of the former, than to lose the splendour of effect, which is got by blending appropriate masses of light into masses of shadow.

In conclusion, we must also direct the attention of the student to the beauties and power of expression, using the word in its most extended sense.

Expression, we are of opinion, should be held as the highest department of painting. Some give to invention the first place, whilst others grant it to composition; yet, without expression, the finest works of art are nothing more than a heap of lifeless matter; with it, the representation of the most insignificant insect or plant starts into life, and we regard it with corresponding feelings.

In short, expression is to be found in all things;

things inanimate express their qualities, the state of atmosphere, and other adventitious circumstances under which they are seen. In human beings and the lower animals, expression displays passion under its two great divisions, pleasure and pain, to one of which every sentiment or emotion approaches more or less remotely. It is not sufficient to represent them correctly in outline, for much more is required to shew that the draughtsman is not a mean observer of nature. The animal must have life; some passion, active or passive, must be represented, and this must be carried throughout, not in a vulgar, extravagant, or confused style, but with that energy of which nature just infuses a quantity sufficient to awaken every nerve, as much as the occasion requires, in like manner as she adjusts the strength of a tree or plant, from the principal stem upwards to the finest ramification, where strength only is wanted to support a single leaf.

When the above was written, the author had not seen the excellent speech of Sir Thomas Lawrence, on opening the Royal Academy, December 1821. It contains so much instruction, that a few extracts cannot but be acceptable. "I caution you" (says this excellent artist) "against too great a reliance on that genius with which nature has gifted you; it is by perseverance alone, and not by natural talent, that you will be enabled to surmount the difficulties of art; those difficulties which enhance and give superiority to our profession over all others." \* \* \* \* \* I cannot omit still to enforce the necessity of a constant attention to correctness and purity

of drawing, and this too in the most minute and apparently insignificant parts, as well as in the general contour of the whole. The works of antiquity should never be absent from your memories: let no one depend on the correctness of his eye for fidelity of representation, without having first formed his ideas of beauty from these, for a knowledge of beauty is essential to that of truth. The gentlemen who are candidates in historical painting, I would earnestly advise, when inventing their compositions, not to be led away by an attention to a play of line, and an harmonious adjustment of parts, but to let truth, nature, and simplicity, be their guide. It is well known, that the happiness of life is often lost by an inattention to known and vulgar truths: and in the same manner are the beauties of art missed, by overlooking those simple and affecting incidents which nature presents to us every day. When inventing, gentlemen, I would advise you not to follow this or that great master, but to consider your subject as it would have taken place in reality, rendering every thing subordinate to expression, for it is by expression alone that we can touch the heart; 'he who would make us feel, must feel himself,' says a high authority, and the experience of every day justifies the truth of the assertion. \* \* \* Leonardo da Vinci, Raphael, Domenichino, and Rembrandt, are the four greatest masters of expression, and from the sketches of these in existence, it is evident that they made expression the constant and primary object of their studies. The first designs of Leonardo for all his works, excepting those upon fortification

and the mathematics, are highly-finished drawings of expression. For the characters and expressions in his large picture of the ‘Last Supper,’ he appears all his life-time to have been searching through nature. Raphael seemed to have formed in his mind the whole of his intended work before putting a line upon paper, and all was regulated by expression. Domenichino thought no line worthy of the painter that the mind did not draw before the hand. The portfolio of Rembrandt is like the page of Shakespeare—every drawing is in itself a drama—the passions speak for themselves ; composition, colour, arrangement of light and shade, all are lost in the power of expression. It is this, and this alone, that entitles our works to situations in the galleries of monarchs, and by the side of the great efforts of genius of different ages.”

## CHAPTER VI.

### ON VARNISHES, VEHICLES, OILS, &c.

VARNISHES are usually made of resinous gums dissolved in spirits of wine, or some fixed or essential oil.

They should possess, in the highest degree, transparency, a clear glassy surface when dry, and work freely from the brush ; a good varnish should also be colourless when spread over a surface ; but as this quality is not easily obtained, where it has colour, it should be of the amber, or yellowish cast, as these tints, in the minute quantity given to a picture by its varnish, produce much less injury to the whole than the greens or blues. The only varnishes that have yet been obtained entirely without colour, are those made with spirits of wine ; but these (usually called spirit varnishes) are quite unfitted for the artist's use, belonging more to the manufacturers of the polished woods and furniture. We are thus left with only the fixed and volatile oils, as a solvent for the gums most in use.

Experience has also confined the makers of varnish to a small number of the gums, and for their solvent to a still smaller list. Of the latter, it appears that the oil of turpentine and the oil of lavender are the only two essential or volatile oils in use, but principally that of turpentine.

Of the fixed oils the number is nearly as small, *viz.* that which is expressed from the white poppy seed, the nut oils, and linseed oil; these are the only fixed oils, we believe, in use at present for the manufacture of the best varnishes, all of which should possess the property of quickly and solidly drying. The gums most in use are those of copal, mastich, sandarac, with which are mixed sometimes a softer gum, as elemi, anima, camphor, and turpentine or common resin.

The balsam of copaiba (capivi) is frequently used when a quick drying varnish is wanted; but in a few years, and often in much less time, the surface cracks into an infinite number of small circular fissures. Sometimes artists have used this balsam as a vehicle in colours, and we believe that the same cracking property is continued in a less degree. As a varnish, it is merely necessary to dissolve it in cold spirit of turpentine, the solution takes place immediately, and it is then ready for use. Where despatch is required this is a valuable varnish, for it can almost as easily be taken off the picture as laid on, provided the surface of the painting be perfectly hard, otherwise the application of the spirit of turpentine and cloth, or hog's-hair painting brush, necessary in the cleaning-off process, will bring off at the same time all those colours which are not yet hardened enough for resistance. This remark will hold good with regard to the removal of every varnish, and most when the essential oil of spike lavender is used, as the oldest paint cannot resist this most powerful solvent.

The essential, or volatile oils, are so called because a small quantity of heat only is required to evaporate them. They are obtained from all kinds of vegetable, and sometimes animal matters, but chiefly from the roots, flowers, seeds, &c. of vegetables by distillation. They may also be obtained by expression, but the former mode is most general. When fresh, and in their best state, the volatile oils will not stain paper, the whole evaporating ; but if they have been exposed to the atmosphere any time they lose some of their volatile properties and leave a residuum.

The most useful to the artist, of the volatile oils, is that of turpentine, and next to it the oil of spike lavender ; as a solvent it is invaluable, especially when, in painting, the stronger gums, varnishes, &c. are used as vehicles ; these often drying quickly, could not be removed from the palette to the picture without its aid ; and again where, under peculiar circumstances, hardened colours have to be removed from the picture, the essential oil of lavender is a sure resource ; its strength, if too great, may be reduced by spirit of turpentine. This is too often done before it comes into the artist's hands, and in short with all the expensive essential oils, which being costly offer many temptations ; and it is not a little amusing to consider that firstly, our nutmegs, cinnamon, and other spices cannot be had until they have parted with their oils by distillation, so neither can we have these oils until they also have undergone a few sophistications ; the oil of cloves, for example, is known to be of so acrid a nature that it will, when pure, burn the skin where it touches, and yet

no one has ever been burned by using the article called oil of cloves. These hints are necessary to the artist, that he may be aware of the troubles he has to expect from defective materials.

The following mode of testing an adulterated essential oil will be found serviceable. If the adulteration has been made with spirits of wine, pour a little of the suspected oil into a glass of water, stir them well together, and the water will absorb, with some appearance of milkiness, any spirit of wine (being an aqueous spirit), and the essential oil will be left floating on the surface. If we suspect that an expressed oil has been used in the adulteration, we must add spirit of wine ; this will dissolve the essential oil, and leave the expressed oil separated, and without mixture. But the most frequent adulteration to which an expensive essential oil is subjected, is that of the essential oil of turpentine ; a piece of cloth dipped in this kind of mixture, and made hot before the fire, soon detects the turpentine, by the entire dissipation of every other scent, that only of the turpentine remaining.

The essential oil of spike lavender is extracted by heat from the tops of lavender, which is grown for this purpose in great abundance round London, in extensive fields, commonly called physic gardens ; at present a great quantity is grown between Mitcham and Croydon, in Surrey. A great deal of the essential oil is contained in the calyx of the flowers, and is obtained by distillation, going over with the steam in form of vapour at the usual

boiling point, and is found floating on the surface of the water, from which it is then taken. Both the essential oil of spike lavender, and that of rosemary, will dissolve gum copal, probably from both having a small quantity of camphor in their oils.

Spirit of turpentine is in such frequent use by the artist, that, unless it be of the purest quality, he will be in continual difficulties. If a piece of white paper be dipped in pure spirit of turpentine and held to the fire, the spirit will so perfectly evaporate, that not the smallest stain will remain, and the paper will receive writing, as before the application of the spirit. If any impurity should be in the spirit, then the paper will appear stained as if with grease, and refuse every attempt to write upon it.

Although not in much use, yet, as an experimental solvent, the SULPHURIC ETHER may be mentioned as one much superior to spirit of wine in certain cases, and in some superior to all. It is most used in the composition of copal varnishes, and were it not so expensive, this volatile liquid, perhaps, would be found to have valuable uses, to which it has not yet been applied.

FIXED OILS are so called, because heat will not volatilize them without decomposition. At their boiling heat ( $600^{\circ}$ ), a white vapour is disengaged, composed of carburetted hydrogen, carbonic acid gas, and oil, leaving as a residuum only a small portion of charcoal.

The cold-drawn, or expressed oils, are the purest in colour, but these are always either slow in drying, or

altogether refuse, without much preparation. On the contrary, those which are hot-drawn readily dry and become hard, two of the most valuable properties they can have for the artist's use.

Oils obtained from the hazel and walnuts are of a beautiful transparent and limpid nature, and, when fresh-drawn, superior in taste to that of the olive, preserving well the delicate flavour of the kernels from which they originate; and it is a fortunate thing for the artist, that their general properties are so excellent, that it becomes of little importance, when purchasing the oil of white poppies, if a good nut oil is given to him in place of it; for fluidity and absence of colour, we should certainly choose that from the poppies, but the difference in a finished picture is not perceptible.

We do not recommend the artist to make his own materials, and, least of all, the different kinds of varnishes, as they are for all occasions much better prepared by those whose business is solely directed to that point; and every thing he can want may be had at all the regular colour warehouses and shops; but it is well he should know how, and with what materials, they are prepared, that he may avoid heterogeneous mixtures in his experiments, by being made aware of the nature of the materials, colours, &c. in which he has to work; without this knowledge, he must naturally blunder, or grope his way through an obscure path, in new attempts at combination; when, by knowing his materials, &c., and a very little chemical knowledge, his trials may always be con-

ducted with a result not very far from his anticipations. On this ground, we feel that no apology is necessary for the explanations which follow; and it may occasionally happen that some, placed far from the advantages of a city or large town, will profit by one or other of these different instructions to the artist's manipulating assistant.

**DRYING OIL.**—This property may be given to the linseed and nut oils, by boiling them in an earthen pipkin, with about half an inch depth of white lead in the bottom of the vessel. This operation should be performed out of doors, or in a place where there cannot be much danger from combustion. Should the oil take fire, it must be removed, and placed on the floor as quickly as possible, and covered with a board; or it would be better if the vessel had an earthenware cover properly fitted to it. Water thrown on burning oil causes a most dangerous explosion. Although we use the term boiling, the oil is never carried to the boiling point. The proper heat is known by dipping a feather into it; if sufficiently heated, the feather will change colour, and become parched and shrivelled, in the same manner as when put into a lighted candle.

The following process for giving a drying quality to oil of poppies, we have extracted from "Tingry's Varnishers' Guide," a work containing much very useful information for those engaged in the manufacture of varnishes.

" Into three pounds of pure water put an ounce of white vitriol, and mix the whole with two pounds of oil of white poppy seed. Expose this mixture in an earthern

vessel, capable of standing the fire to a degree of heat sufficient to maintain it in a slight state of ebullition. When one-half or two-thirds of the water has evaporated, pour the whole into a large glass bottle, or jar, and leave it at rest till the oil becomes clear. Decant the clearest part by means of a glass funnel, the beak of which is stopped with a piece of cork ; when the separation of the oil from the water is completely effected, remove the cork stopper, and supply its place by the fore finger, which must be applied in such a manner as to suffer the water to escape, and to retain only the oil, which, when prepared in this manner, becomes, after some weeks, exceedingly limpid and colourless.

“ Many artists reject every preparation of oil in which water has been employed as an intermediate substance. The drying material may, it is true, be boiled with the oil without water, but as the heat administered to the oil will be so much greater, the probability is that more or less colour will be added to it, and consequently, for delicate colours, the oil will be totally unfit. In the process here given, the oil becomes charged with a little water, by which it acquires a nebulous appearance, and retains it for several weeks. This interposed water gradually separates itself, and at the same time carries with it a mucilaginous matter, a little altered, the complete separation of which adds to the extreme purity of the oil. Perfect limpidity is the surest sign of the absence of all its foreign particles. A slight heat accelerates the clarification of oil prepared with water.”

We shall borrow another process for the same purpose, from the same author. "When the long-continued cold of winter gives to snow a pretty dry consistence, take linseed oil, nut oil, or oil of poppies, any quantity, and mix it with snow, kneading the mixture in a basin with a wooden spatula, or in a mortar with a pestle. Form it into a solid mass, and place it in an earthen, glass, or porcelain vessel, with a large aperture, with a cloth to prevent the introduction of foreign bodies. Expose the vessel in a place accessible to the cold, but sheltered from the influence of the solar rays. On the return of a milder temperature the snow will dissolve into water, which will separate itself from the oil, with the impurities of which the water will be charged. If a severe temperature continue two months, the oil will acquire in a high degree its drying quality. The oil is decanted from off the water, or it is removed with a spoon, and put into a bottle. Rest, by separating the interposed particles of water, is sufficient to clarify ; this separation may be expedited by exposing the oil to the heat of a balneum mariae."

Tingry found that by treating the oil of hempseed in this manner two distinct oils were obtained, one lighter than the melted snow, and the other heavier, which of course remained at the bottom, leaving the water between the two ; the upper stratum of oil formed two zones, the one clear, the other the colour of a chamois or tawney.

In preparing oils by heat, an addition of sugar of lead will also give the desired property of drying ; and an onion

or head of garlic put into the oil will indicate, by its becoming brown or burnt, the time when the oil has arrived at a sufficient degree of heat. White vitriol will also serve in place of litharge or white lead; the quantities may be generally estimated at one ounce of sugar of lead, vitriol, &c. to one pound of oil. Although all the fixed oils require a heat of  $600^{\circ}$ , to arrive at the actual boiling point, yet long before this they will throw off a highly inflammable vapour from their surface. Even at a heat of  $370^{\circ}$ , the greatest care is required, for in this state, the approach of the smallest flame will set fire to them, when they become completely spoiled for the use of the artist. Of course daylight is to be taken for operations of this class, as the approach of a candle or lamp must always be attended with the greatest risk. Drying oils (particularly that of linseed) are used (when in a fatty state from exposure to sun and air) by the gilders on wood in those processes called oil gilding, and which endure much better the effects of air and moisture than water, or burnished gilding.

The varnish most in use for the protection of paintings, is that which is made of gum mastic, notwithstanding the superior qualities of copal; yet one observation we must offer on varnishes, which we think of some weight, when the preservation of the picture is to be considered, *viz.* that the varnish should partake as much as possible the qualities of the vehicle that has been used in the painting, that the expansions, and contractions, &c. &c. occasioned by atmospheric changes, may always be similar. Thus,

where mastic varnish has been used as the vehicle, or any composition with gum mastic as a principal component, certainly mastic varnish will be better for the picture than copal ; and again, where copal varnish has been used as the vehicle, it will be better to use it as the finishing varnish over the whole ; for each gum has properties of its own, and in some measure dissimilar, the mastic being very much the softer of the two.

All the varnishes are made in a great variety of ways, or rather proportions of ingredients. For mastic varnish the following formula is given by Tingry as the best for a picture varnish : “ take of gum mastic cleaned and washed twelve ounces, pure turpentine one ounce and a half, camphor half an ounce, white glass pounded five ounces, oil of turpentine thirty-six ounces ; the mastic is to be reduced to a fine powder and mixed with the glass, these are to be enclosed in a matrass, which is to be placed in a vessel of water, and the water kept boiling for two hours ; when the solution is completed the turpentine is to be added, the matrass being still left in the water for half an hour, it is then taken out to cool, constantly stirring it with a stick, and the day after it is to be filtered through cotton ; the camphor is to be cut into pieces, and added with the turpentine.” If this varnish be intended for old pictures, or those already varnished, the pure turpentine may be left out ; the addition of the turpentine, by giving greater softness to the varnish, renders it more fit for new pictures, the colours of which are not yet perfectly hard.

Copal varnish is a mixture of copal, Chio turpentine, and oil of turpentine ; of the copal, one-half the quantity that is used of the Chio turpentine is sufficient ; of the oil of turpentine is added a quantity equal to the solution of the whole.

Another formula, called Sheldrake's copal varnish, is to take of copal two ounces, spirit of ammonica two ounces, or camphor two drachms, rectified oil of turpentine one pint ; "stop the vessel with a cork cut in groves to permit a portion of the heated vapours to escape ; bring it to boil over a brisk fire, so that the bubbles may be counted as they rise ; keep the mixture at the same heat, for if the least irregularity or over-heating takes place, it is useless to proceed ; when the solution is complete, let the vessel be quite cool before it is opened." We give this form as it has been given by Mr. Sheldrake : but it is obvious that it is in many respects a very inconvenient process, and requires more care and circumspection than the varnish-makers perhaps will be disposed to bestow upon it. There is no doubt, however, that a good and colourless varnish may be obtained by such a process.

The above formula are also borrowed from the same useful work, to which we can with confidence refer our readers who may wish for further information on this subject, originally written by Mr. Tingry, professor of chemistry of Geneva, and one of the best works that has yet appeared of its kind. He mentions a copal varnish that in durability had surpassed enamel ; it had been tried

on the lid of an ivory box, and worn in the pocket with keys and other substances, till at length the metallic ring on the box which served as an ornament was quite destroyed, whilst the varnish remained uninjured. The varnishes that are most durable for purposes liable to certain degrees of violence are called "the fat varnishes," and have certain portions of the drying oils in their composition; also caoutchouc (Indian rubber), amber, &c. These are slower in drying, and are used for carriages, iron or brass lamps, tea-urns, &c. &c.

For new pictures, *viz.* those which are not yet sufficiently hardened to receive their final varnishing, the best application as a substitute is the white of eggs, well beat up with a little common colourless spirit, as whisky, Hollands, &c. to which a very small quantity of the juice of garlic has been added, and laid on the picture whilst drying in a horizontal position, will be sufficient; the picture to remain in this position until it is dry. The juice of garlic is added to prevent the flies from settling on the picture; plain water with a sponge will remove this varnish when necessary. Before any permanent varnish is applied, it is well to wash the picture with a sponge and soft water, and to have it made perfectly dry with soft cloths, or the varnish will refuse to lie on it, as has been observed with regard to second and after paintings,

**VEHICLES.**—We have before given our opinion against the use of much vehicle in painting, but as they are used by many, we cannot but mention a few of those generally considered the best; perhaps the least injurious may be

the following mixture :—Boiled nut, poppy, or linseed oil, to which add one-third of best rectified spirit of turpentine. Wilson, the celebrated landscape painter, used linseed oil and spirits of turpentine, mixed in equal quantities, and exposed to the air till nearly half of the mixture had evaporated, becoming thick, and of the nature of dissolved gum, adding afterwards a small portion of melted bees' wax.

Some use spirits of turpentine alone, on account of the purity it gives to all the lighter colours, but its adhesive qualities are so small, that the colours thus used will scarcely bear to be retouched or varnished, and a few trials only are sufficient to shew its unfitness when not in combination with a fixed oil, as that of poppies, nut, or linseed, or some of the varnishes.

A vehicle in very general estimation, and probably more esteemed than it deserves, is made by a mixture of any of the boiled oils with about one-half, or from that to an equal quantity, of mastic varnish ; the varnish is to be poured into the oil, and the whole mixed by gently shaking it together, by which it gains a jelly-like consistency : much stirring destroys, in a great measure, this gelatinous quality. It is best to make this vehicle in small quantities, when wanted ; it is called Maguilp.

A vehicle which gives great transparency to colours, and also the property of preserving accurately whatever touch or shape the brush has given to them, likewise the very useful quality of being worked upon a second time whilst wet, when dispatch is required, is made of the

purest gum mastic and sugar of lead, about equal parts (by weight), ground very fine with much oil (linseed, poppy, or nut oils, *unboiled*). If this did not change, but preserved all its original beauty, it would make one of the most agreeable vehicles with which we are acquainted; but many pictures that we know to have been painted with it have very greatly changed from their original hue, therefore it cannot be recommended when permanency is desired.

The two following vehicles are now in use by eminent artists, and have been considered among the best, nor do either of them seem very likely to effect much change in colours when moderately used: the first consists in simply tempering the colours (taken as they come from the colour-grinder) with copal varnish, the strength of which has been a little reduced by spirits of turpentine, and to continue the use of it with the brush or pallet knife until the piece is finished. We have seen some beautiful pictures executed with this vehicle, which for delicacy of tints, handling, and other valuable properties belonging to the executive, cannot be surpassed. The next vehicle we recommend is composed in the following manner: take a small quantity of water saturated with sugar of lead—take also an equal quantity of water fully saturated with yellow soap, then mix both, and stir them well together. The acid of the sugar of lead uniting with the alkali of the soap, leaves the materials of the soap in a pulpy state, and this is to be mixed with the white hard varnish (sandrach), which becomes softer by this

pulpy addition, and more fit for use. This is a vehicle still in great estimation, and as far as we are enabled to judge, very deservedly, as it gives to colours a brightness that is quite unapproachable by using any of the fixed oils, besides a spirit and freedom in laying on, that can only be truly appreciated by those who have had much practice in painting.

ACETATE, or sugar of lead, ground with boiled oil, poppy, nut, or linseed, can scarcely be called a vehicle, being merely used to force the slow-drying colours, such as Vandyke Brown, Blacks, &c., to dry when frosty or cold weather prevents this very necessary operation from proceeding at the same rate with colours of better qualities. This mixture should be ground exceedingly fine, by which its dessicating properties are greatly increased. It is kept in bladders at all the colour shops, and known by the name of "drier."

White wax (bleached bees' wax) is frequently used in spirits of turpentine as a vehicle ; this gives a beautiful clearness and texture to the colours, nor is it liable to change, but it is with great difficulty compelled to dry ; consequently, second paintings, &c., where the wax has been previously used, will frequently come off entirely from the canvass, and with them all the former paintings. The method of preparing this mixture is to dissolve as much wax in rectified spirit of turpentine as the spirit will hold in solution, assisted by a moderate application of warmth, and when used, to have a strong drying varnish added to it.

A substance has recently been prepared, which, probably, when well understood, may prove quite as useful, and perhaps work more freely from the brush, than the different compositions of bees' wax. This substance is a preparation of tallow, obtained by enclosing it in a coarse linen bag, and subjecting the bag to a very great pressure by machinery, which forces from the tallow a strong dark-coloured oil, leaving in the bag a substance not unlike powdered bees' wax, perfectly white, and which is used in the manufacture of wax, and other kinds of candles. The oil is consumed by the soap makers. A good method of using this expressed tallow for the artist has not yet been discovered, as far as we are informed, and it is yet of too recent a date to have had its good or bad properties, whatever these may be, satisfactorily made out. The only difficulty of any amount in our estimation, would be to make it dry well, and in any attempt for this purpose, we would recommend to leave the expressed tallow in its simplest state, and to make the trials with some of the hard varnishes and spirits of turpentine.

## CHAPTER VII.

### ON PAINTING IN WAX, OR ENCAUSTIC, GROUNDS.

A METHOD of painting in wax, or rather of painting in water colours, and fixing them by wax, as described by Pliny, was invented, or re-invented, by Count Caylus, and highly extolled at the time ; yet it does not seem to have been adopted to any useful extent : but as the method is ingenious, and may also supply hints to the speculative artist, we subjoin a short account of it. The cloth, canvas, or pannel, is first to be prepared by rubbing it well over with bees' wax near a fire, so as to allow the wax to be well melted into the cloth, &c. The colours are to be mixed with simple water ; but as they will not work or lie on the wax, the picture, or prepared cloth, is to be rubbed over with the finest chalk or whiting ; this will make the colours adhere, and when the picture has received them, it is to be placed near a fire, so that the wax may melt, and thus fix the colours. It is stated, that pictures done in this manner, unlike those done in oils, may be seen in any light, without the least false glare, which the latter take when not viewed from the proper station, and also that, however soiled they may be, they are most readily cleaned, and that they will endure without the least change for an indefinite length of time. These are invaluable qualities ;

but the difficulty of arranging colours mixed in water, which in fact are body colours, or what is called distemper, without the size, to any great degree of refinement in tints, is so great, owing to such colours being so widely different in their wet and dry states, that we fear it can never be carried to such perfection as in any way to rival the high state to which the oil and water-colour paintings of the present day have been brought; and notwithstanding the colours take, when melted into the wax, very much the appearance they have whilst wet, the practical artist will see all the inconveniences attending the process, and estimate it accordingly.

In a work written by J. H. Müntz (published 1760), from which we have taken the above, the author gives an account of a portrait he painted in this manner, as a dead colouring, and finished afterwards in oil colours upon the wax (a copy from one by Sir Godfrey Kneller), which he says not only "succeeded to his own satisfaction and surprise, but to every body's else that saw it." He also says, "the brightness and transparency of its colours is not to be conceived; I copied the same head again in oil colours only, and with all imaginable care and attention, but the colouring of the latter looked dull in opposition to the other. To give reasons for this incident is more than I can do."

Throughout the work, Müntz is so sanguine as to the value of this mode of painting (the encaustic), that we are not surprised that the very obvious reason of finishing his first essay on a wax ground, which the first picture

amounted to, neither more or less, and the second on a cloth or pannel, such as is usual in oil painting; and consequently in some measure absorbent, made all the difference; and we here arrive at the point which induced us to give a description of this encaustic, or painting in wax, for it is well known to practical men how much painting and re-painting is required to make a picture in oils bear out, as colours, when painted on the common grounds in use, sink very greatly into them. In short, to such an inconvenient extent does this go, that both portrait and landscape painters who are at all anxious about the future appearance of their works, are obliged to keep them long in hand, that the colours may sink, and again be brought out by fresh paintings. In water-colour painting, either for landscape or miniatures, or any other kind of portraits, this is not the case; we proceed day after day until the piece is finished, without the least apprehension of any change; nor do we see any reason why, by the use of such grounds as may be made by wax for oil colours, we should not do the same in oil painting, allowing only the necessary time for the drying or hardening of the colours.

The admirers of absorbent grounds say that they make the colours more pure, by absorbing the oils or vehicles with which the colours are tempered; this must be granted, but we must inquire how much more oil, &c. is required to make colours work on an absorbent ground, than on one which is not in the smallest degree absorbent. and where the colours are sufficiently and finely ground,

This is an interesting subject, and worthy of more serious consideration than we have space to allow for it ; but we cannot leave it without stating our firm belief, that either the wax, or newly-invented Indian-rubber grounds even, with a *slightly absorbent surface laid over them*, would do infinitely more for the preservation of pictures in oil than any other grounds that are now in use.

In the *Transactions* of the Society of Arts for 1807, and before this, in 1792, we find mentioned an improvement on the encaustic painting, invented by Count Caylus. This improvement was introduced by Miss Greenland. The first process is to dissolve four or five ounces of gum arabic in eight ounces of water in a glazed pipkin ; to this add seven ounces of gum mastic in powder ; the vessel is then to be placed on a moderate fire, and the contents to be kept stirred until the whole mass has formed itself into a paste ; five ounces of white wax are to be put into the vessel, and stirred until it boils ; immediately on boiling remove the vessel, and put in sixteen ounces of distilled cold water, which is to be added in small quantities, stirring the whole well together ; the composition will then take a creamy or gelatinous appearance, and may be preserved in bottles well stopped. With this mixture the colours are to be used.

Many or most of the soft resinous gums may be mixed with water, by dissolving borax in boiling water in the following proportions, *viz.* to twelve parts water (by weight) add one part borax ; into these, gums may be mixed, also bees' wax or oil, which when dry make a

perfectly transparent vehicle, although in the working it possesses a most unpromising degree of opacity.

Different kinds of soap have been tried, but what effect time may produce on such vehicles the author cannot say, as the pictures he has seen in which these vehicles have been used are of modern date. If a good vehicle can be had from tallow (the chief ingredient of most soaps), it probably will be obtained from that which has had the oil taken from it, as we have noticed in another place, and mixed with some of the varnishes which dry well.

White lac varnish, made with spirit of wine, although it refuses to mingle well with oil colours, yet may be wrought, by using the palette knife, into a mixture with the colours, so as to give them a freedom of working ; and also the property of preserving the exact form given to them by the brush, or where the colours are wished to remain raised on the cloth, as in high lights, &c., the lac varnish will give this power as effectually as any of the vehicles now in use, and perhaps is the least injurious of all, as the spirit of wine entirely evaporates, leaving only in the colours a very small portion of the gum lac. The seed lac will be found best for this purpose. The varnish is made by mixing five ounces of finely powdered lac in two pints of rectified spirits of wine, and to be dissolved by a moderate heat.

We must finish this account of vehicles with an extract from Mrs. Calcot's interesting "Essays towards the History of Painting." She observes : "Pliny enumerates many resins which were to be dissolved in oil before

they could be used as liniments. They are such as flow from the terebinth, larch, lentisk, or mastic, and cypress, besides the pine or pitch trees. He also names many gums which might be dissolved in water, or wine, or vinegar, or a mixture of vinegar and wax. Some of these gums he occasionally names as useful to painters, and it is not unreasonable to conclude that those preparations of them with oil which would render them so peculiarly convenient as vehicles for colour, or varnishes for preserving pictures, were not overlooked. \* \* \* In a subsequent passage, writing of vermillion and minium, and of the great luxury at which the Romans of his time had arrived in fine colours, he mentions that walls coloured with those expensive pigments were apt to blacken unless defended by a varnish of wax, for which he gives the following recipe : “Take white punic wax, melt it with oil, and while it is hot, wash the painting over with pencils, or fine brushes of bristles, dipped in the same varnish ; when laid on it must be well rubbed and heated again with red-hot coals of gall-nuts, held close to it, till the wall may sweat and fry again ; then rub it well with waxed cloths, and then with clean linen cloths.” \* \* \* “Moreover wax may be brought to all manner of colours, for painters, limners, and enamellers, and for a thousand purposes men have used thereof, but principally to preserve their walls and armours withal.” (Holland’s translation of Pliny, book xxi. c. 14.)

**OF GROUNDS.**—These are made in all possible ways, some of whiting and size, others with oil colours ; the

first are absorbent, the latter leave in the colours all the oil or other vehicles with which they may have been used. Both species of grounds have their admirers; perhaps a middle course, or semi-absorbent, may be better than either.

The only ground of which we shall mention the construction, is one for which the Society of Arts gave their honorary silver medal, and a premium of fifty guineas, to Mr. S. Grandi; it is called the Venetian ground, and has met with much approbation from many eminent artists.

“ Break grossly the bones of sheep’s trotters, and boil them in water till cleared from their grease; then put them into a crucible and calcine—afterwards reduce them to a powder in a mortar. To some thin paste add an equal quantity of the bone powder, and grind the whole mass well together. This mixture forms the ground for the pannel. When the pannel has been well pumiced, some of the ground is to be rubbed on with a pumice stone, that it may be incorporated with the pannel. Another coat of the composition is next applied with a brush, when it is suffered to dry, the surface being afterwards rubbed over with sand-paper. A thin coat of the composition is then applied with a brush, and if a coloured ground be required, a coat or two must be added, so as to complete the absorbent ground. When a pannel thus prepared is wanted to be painted on, it must be rubbed over with a coat of raw linseed or poppy oil, as drying oil will destroy the absorbent quality of the ground, and the artist’s colours should also be ground

very fine. The grounds thus prepared do not crack ; they may be painted in a very short time after being laid, and, from their absorbent quality, allow the business to be proceeded in with facility and better effect than with those prepared in the usual way."

If it be true that Titian had the cloths on which he painted well soaked at the back with bees' wax dissolved in oil, to prevent their imbibing the moisture of the atmosphere of Venice, it is a proof of his sound judgment ; but if we add to it another reason, and say that he also did it to prevent his colours from falling through the ground into the cloth, and to support the ground itself on the surface of the cloth on which the picture had to be painted, we perhaps shall not be far from the truth, for on a cloth so prepared any kind of ground can be laid, and the ease and satisfaction of working on semi-absorbent grounds was not only well known to Titian, but to all those artists who had been in the practice of painting their dead colourings in distemper, or colours mixed in size, and afterwards of finishing them in oils. We have extracted the following account of the mode of making or preparing grounds, from a small but excellent work on painting in oils, by the late Mr. Ibbetson, first published about forty years since, from which the reader may gather a few useful hints :—"The cloths used at present for painting upon are prepared in the worst and most dangerous manner imaginable. The cloths are brushed over with a strong glue to lay the flue, and to prevent its absorbing any oil, as I suppose ; then with

stiff paint, the greatest part of which is whiting, they plaster over the glue twice, seldom three times ; it is then finished. In a very short time, if kept in rolls, it gets so brittle, that it would be as easy to unfold a manuscript of Herculaneum as this, without breaking or cracking in ten thousand places. If the picture be hung in a damp place, it becomes covered with circular cracks, like net-work, for which there is no remedy, and also comes off in flakes altogether. It ought to be prepared with *very thin starch*, and rubbed while wet with a rubber stone, to lay the flue smooth, and painted with proper thin colour several times. When the paint unites with the canvas, it is flexible, will never crack, and will endure for ages. In Holland, and even Dublin, their cloths were formerly superior to, and more pliable than the English.

“ Wood well prepared, oak or mahogany, is very durable : the Dutch have prepared them with whiting and size, which has been the destruction of many fine pictures. Van Goyen and others have prepared or filled up the pores of the wood with their transparent vehicle, which also enabled them to shew the grain of the wood through the shades of the subject ; but the best way I have found, after trying every thing, is this :—Procure at a colour-shop a quantity of what is called by the house painters *flattening*, which is white lead ground with a large proportion of spirits of turpentine ; stir a small quantity of drying oil well among it ; then take as much as will do for present use, and mix it to a proper consistency with spirits of turpentine, and lay on the pannel

with the brush, leaving the brush marks the same way with the grain of the wood. When dry, in a day or two, take some of the stiff colour, and plaster it all over with a palette knife, and take it off again as clean as possible with the knife, and sufficient is left to fill up the pores of the wood and marks of the brush. This, repeated two or three times, leaves a most beautiful face, and very hard, and it will never crack or separate from the wood whilst it endures."

A little farther on he confirms what we have before stated, with regard to the use of size colours by many of the older masters; but whenever this method of painting is used, the ground should be of a similar nature, for it may readily be imagined that a flexible ground, such as may be made by using oil, bees' wax, or a solution of Indian rubber (*caoutchouc*), with the more solid matters, would not be sufficiently firm or unyielding, unless laid on wood. To prevent cracks taking place, and perhaps to a great extent, when the first paintings have been laid in with a strong parchment size, it therefore becomes necessary to assimilate the texture of the ground to the nature or properties of the painting which is to be laid upon it. A great many pictures by the old masters are painted upon plaster grounds, common chalk or whiting, with size, laid on board, and these have stood remarkably well, as we are in possession of works by the greatest masters, which prove that such grounds have some value when they can be kept from moisture, by the high state of preservation in which they yet remain.

ON  
**WATER-COLOUR PAINTING.**

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**INTRODUCTION.**

WATER-COLOUR painting, as practised by the ancients, is most probably of much older date than the sister art of painting in oils, but their finest works were done only with colours tempered in size, white of eggs, and other gelatinous substances, consequently were opaque, such as are at present used for scene painting, and now called body colours. These have no transparency, nor indeed any of the richness we find in all natural objects. The freshness of the vegetable kingdom is quite unattainable ; the glossy coats of animals cannot be imitated, and the eye of every living creature loses its brilliancy, when represented by such an imperfect medium.

On the invention, or rather perfecting, of oil colour painting, the use of size colours was immediately laid aside, except as a preparation for the more powerful and finishing colours in oils. With such an admirable improvement the world of art rested for ages entirely content, nor was it imagined that another mode was to be invented by England which was in some measure to set aside the use of oil colours. That such has been the fact,

is shown by the number of excellent artists who have entirely devoted themselves, and with the greatest success, to painting in water-colours.

In its present improved state, water-colour painting has some advantages over the sister art, such as greater purity and light in the skies and distances, or wherever light is wanted, and in those tints which give clearness and truth to the aerial perspective; its colours can also be worked with or without the glossy appearance which is inseparable from a varnished painting in oils. Yet it must be granted that the latter mode has also advantages, and those very great, if we could be assured that these advantages, *viz.* depth and transparency of colours in the shadows, would endure as long as the picture; but, as far as our experience will carry us, it seems that the oils and other vehicles used, as well as the constant exposure of the surface to the action of the atmosphere, and often foul air, &c. &c., occasion a certain, although slow, progression towards a loss of that superior transparency and colour, in the shadows in the first place, and lastly, a total obscuration and decay of the whole picture. It is true that some hundreds of years may be necessary for this result; yet when it is considered that the oldest paintings in oil are not of higher date than the times of John Van Eyck, or about four hundred and fifty years, and of these only a small number to be found, and that they will not bear any comparison as to condition with the miniatures and other ornaments still existing in missals not much less than one thousand years old, we

cannot but fear, whilst regarding the striking difference between them, that there may be some lurking vice in oil paintings not yet entirely got rid of. The manner in which the missals have been kept or preserved has done much for them, but the same method is inapplicable to pictures done in oils with the same success ; and could we have had specimens of both manners brought to light by the discovery of Herculaneum and Pompeii, we fear, hermetically sealed as these towns were from the external air for so many ages, that the oil-coloured paintings, if at all visible, would not have borne any comparison with the lively-coloured frescoes that still remain after a lapse of nearly two thousand years ; and our opinion is founded on the fact, that oil has been found in both these towns changed to an opaque and thick grease.

That every fixed oil must have undergone the same change if subjected to the same ordeal, can hardly be doubted. If to this we add the gums, various varnishes, and long *et cetera* of other vehicles at present used in oil painting, and set against them the simple manner in which the water-colours of the ancients were mixed, *viz.* with a size of which a very large proportion was water, and again, that water was the only solvent used in working them, which evaporating, left them in their purest condition, we cannot but be convinced that to the simplicity of their composition they owe entirely their endurance for so long a series of years ; nor is it, in our opinion, presuming too much that the water-colour paintings of the present day, in which water only

is used as the solvent, may, and most probably will, endure much longer than works done in oils according to the present modes. This is our conviction ; yet, much as it is to be lamented, the best works of our oil painters, as well as those of the ancients, will, in addition to every care and protection that can be given to them, receive from time such careful restorations and retouchings, that after a lapse of ages, if none of the original painting should be remaining, every idea of the original picture will most probably be so well preserved, that the fame of the picture, and of its author, may descend to more remote periods than at present we can imagine.

Paintings in water-colours may also be retouched, but not with the same facility ; yet, with proper care, they can never require it, and will endure, when a well-judged selection of colours has been employed and the picture kept out of sunshine, or damp places, and preserved in portfolios, and these in well-aired libraries or other rooms, for a very long time, as we have instanced above ; and these instances (we mean the missals) seem likely to last, if we may judge from their present perfect state of preservation, ten thousand years longer, or even ten times that amount, carrying with them that most desirable quality of all others, the original colours and pencilling of the artist.

It may not be out of place to state here the best method of preserving water-colour paintings which are to be framed and hung up against walls, as in exhibitions, &c. The drawing should be in a perfectly dry state before it

is laid on the glass. The glass to be made as clean as possible, and also well secured at the interior edges of the frame, by pasting narrow strips of paper along the sides of the frame, part of the paper resting on the frame and part on the glass ; this is to prevent any external air, smoke, &c. from approaching the front of the picture : when the picture is placed against the glass, a good board is to be laid over the back of it, fitting the frame, and this also is to be covered with paper all round its edges, part of the paper being pasted on to the board and part on to the frame ; thus the picture becomes entirely excluded from the attacks of dust, damp, foul air, and many other inconveniences, and it is only when framed in this manner, if exposed to the light, that it can with safety be preserved for any great length of time.

In conclusion, we must not omit to add, that the very trifling quantity of gum arabic, size, &c. which the water-colours of the present day receive to make the more opaque colours transparent, and all of them adhesive, hitherto have not been found to make the smallest change in their qualities, whether shut up in portfolios or exposed to the light.

*On the Practice of Painting in Water-Colours.*

A great variety of methods have been used since the invention of the present transparent water-colours ; to enumerate them would be of little benefit to the reader, the intention of this work being to point out the most approved system of painting now in use, and which has

been found so successful, that little more (if any thing) is left to be wished for.

This system is the simplest than can be devised. It consists in merely mixing colours to the hue required, and laying them in their proper places ; and as it is quite impossible to get the various delicate and prismatic tints of distances and skies at the first painting, we must rather attempt them by preparatory colours (not shadows), and finish by repeated and mild additions, when these are wanted, or by taking out the colours where too dark, or of a hue so far wrong as to be unconquerable by any other method. The brilliant lights in every part of the picture, where they cannot be left untouched, are to be produced by taking up the colours and then finishing them to the requisite hue, proceeding throughout to use the warmer colours of the pictures before the colder tints, as shadows, &c. are used.

This is the broad outline of the practice in use by the best artists of the day, and is as widely different from that which was in use on the invention of our present water-colours as the pictures of the two periods differ in quality of every kind, in colour, richness, depth, variety, effect, &c. &c. The great point in which these two styles differ is, that the principle of the earlier mode consisted in using a mixed colour, called neutral tint, and this being made up into a cake of colour, served indiscriminately for the shadows of every kind of subject and season, whether the picture was to represent a land or sea piece, stone or brick buildings, evening or morning,

sunshine or storm, summer, or a wintry snow piece. The neutral tint shadows were *first* laid in, and very frequently (perhaps we should say invariably) served also for distances, clouds, and foregrounds, and every kind of object ; cattle, sheep, and the bronzed faces of their attendant shepherds, were most impartially shaded with the same neutral tint ; after which, a variety of thin washes of colour was thrown over these leaden-coloured shadows, on which they produced so little effect, that the designation they received in the older catalogues of the Royal Exhibitions, *viz.* “water-tinted drawings,” or “a water-washed drawing,” was the best that could be given to them. We well remember these “water-washed drawings,” and their ineffective appearance, although many of them were executed with such an exceeding accuracy of pencilling that, in fact, they became untrue to nature when applied to the distances. In general, the artists of those days trusted to their execution with the black-lead pencil, or reed pen, for the finish ; both very ineffective instruments, especially the former, for producing a natural appearance in painting.

The black-lead pencil is very feeble, and the reed pen much too coarse (except in very skilful hands) ; and both too frequently are used to represent an outline where no outline should be visible, as on the light sides of every kind of object, &c.

These remarks on the neutral tint style of painting, sometimes a little varied by using Indian ink or sepia, now fortunately obsolete or nearly so, are merely given

as beacons, for it is too palpable that every season, every kind of object, and every degree of distance, must have their peculiar shadows, as in nature they have their own proper colours; to require any arguments against this wrong system, more especially as it is hardly any longer in existence, excepting with a very small number of old practitioners; yet these in the handsomest manner acknowledge the superior effect of the modern style:

This style may date its true origin with the invention of the modern water-colours, *viz.* in 1781, about which time Thomas Girtin was in his twelfth year, being born in 1773; and it is to this celebrated and highly gifted artist that we are indebted chiefly for pioneering the way in their proper use, and by his excellent works throwing out of estimation the “water-washed drawings” of his time; these, however, still continued in use for some years after the world had learned, as well from the works of Girtin, Turner, and others, that the newly invented colours were capable of rivalling the hitherto unrivalled art of painting in oil.

Since their first invention they have been considerably improved; their different degrees of permanency, &c. are better known, and chemistry, now almost an entirely new science, has lavished her treasures in aiding the colour-maker’s art, so that we have not much left to wish for, unless some means could be devised to render fixed a few of the beautiful, but fleeting colours, as some of our yellows, and the different tints obtained from the cochineal insect.

In using water-colours, three different modes are brought into action on the same drawing. The dry cakes are rubbed on palettes, or common white plates, for skies and distances, and used in degrees of force and intensity, such as the tone of the drawing may require ; for middle distances, the colours may be either rubbed on the palette, &c. with water, or taken from those prepared for the foreground. These are either the hard cakes placed in tin colour-boxes (japanned or lacquered), rendered soft by laying water on them, or the lately prepared soft colours, which remaining constantly moist, are at all times ready for use. With either of these the foregrounds are painted in with strong colours, of a rich and deep tone, preferring always the warm colours to the cold, for one very conclusive reason, among many, that the warm colours are readily convertible into a cold or cool state ; but the converse is very generally not a little difficult, and sometimes impossible without the entire removal of the objectionable tints ; and it is constantly found in practice that, however warmly coloured a drawing may be in the commencement, it will lose very much of this warmth before it is finished by the introduction of the shade tints, which are never, or seldom, used in the first colours of the picture, or, as it is usually termed, “the laying in.”

Before we advance any farther it will be well to make the amateur and student aware of some of the differences in drawing papers. The following table will shew the various sizes, *viz.*

	Inches.	Inches.		Inches.	Inches.
Demy .....	20	by 15	Atlas .....	34	by 26
Medium .....	22	17	Double Elephant .....	40	26
Royal .....	24	19	Antiquarian .....	52	31
Super Royal .....	27	19	Extra Antiquarian .....	56	40
Imperial .....	30	21	Emperor .....	68	48
Colombier .....	34	23	Extra thick Drawing Papers.		

The last-named on the list are chiefly used by artists in teaching. On this paper a coloured drawing may be executed without fastening it down to a drawing board ; nor is it liable to break or crease when rolled sufficiently small for the pocket, the roll being easily made to return to a flat surface. The greatest objection to this paper is the trouble it creates in mounting on other papers, and this is necessary before any drawing can be completely finished.

The best finished drawings are always laid down (mounted) on three or four thicknesses of drawing paper, so that it may remain solidly level whilst undergoing the various workings, sometimes rather severe, to which drawings of the modern school are subjected ; the chief principle of the present method being to incorporate the colours with the paper as much as possible, and not to leave them on the surface, carrying this operation from the most delicate tints into the strongest or deepest toned.

Drawing papers are sometimes of an extraordinary degree of whiteness ; these may be suspected of having had a superabundance of acid used in the bleaching, and the draughtsman had better sacrifice a small matter in the extreme purity of colour, than run the risk of having the whole work ruined by any remains of acid. The

author well remembers a large and well-finished drawing by one of our best artists becoming an entire mass of dull red, owing to the acid in the drawing-paper changing every tint in which blue had been used ; and as the subject happened to be a forest scene, every variety of green tint (the prevailing colours) became one mass of dingy red ; the brown tints remained much the same ; the reds became more red ; and the skies and blue hills in the distance suffered in the same way with the greens ; and all this did not happen till the drawing had been finished about three or four months. Paste used for mounting drawings often has alum in it, or has become acid with age ; both these are to be carefully shunned as dangerous. If the amateur or artist procures his paper, &c. direct from some of the most respectable London houses where materials are sold for the use of artists, he will very seldom, or perhaps never have occasion to find fault, for in these houses it is so well known what the artist requires, and so much to their interest to study these wants, that a *written* order to one of them will always produce a result fully equal to the wishes of the purchaser. The author of the present work has at all times been so perfectly satisfied with the colours, drawing papers, and other materials of the Messrs. ACKERMANN and Co. (his publishers), that he feels much confidence and pleasure in recommending them.

A pupil anxious to advance in water-colour painting, would best forward his views by taking a few lessons in drawing from some eminent teacher, for the manipula-

tions are sometimes difficult, and at all times require much dexterity of hand, arising out of the necessity for expedition, or the colours would dry on the paper before his intention had been attained, and this produces blemishes of various kinds, such as inequality of colour, unevenness of tint, hard edges, &c., all of them requiring a strong application of the softening brush, and quite as often have to be taken out entirely by the sponge. To have seen a sky once laid in by an experienced artist, would save the student many months of vexatious trials, especially where the tints are varied from the horizon to the zenith : as, for instance, in a sunset, for the blue of the upper part of the sky cannot join the yellow or orange tints of the horizon without an intervening and connecting tint ; in this case the gradation of colours might be from blue into violet, this again into a rose tint ; then leaving all blue out, we advance into the yellows and orange tints, and possibly end again with the various rose tints and warm purples. This is one kind of evening sky ; another, perhaps, would proceed from blue, through violet, into white, and from the white advance through the different stages of the lower parts of the sky, or clouds. More instances need not be added. Such skies may be commenced either from the top or lower part, *viz.* either with the blue tints or the yellows ; if with the latter, begin with clean water in the brush at the top of the picture, using a swan's quill camel's-hair. If the picture be large, carry the water evenly over the paper from edge to edge of the drawing, and a little before the

water approaches that part where the blue is to graduate into rose colour, add a little weak colour of the last-mentioned tint, carrying it forwards, and strengthening it in its progression with yellows, and gradually leaving out the lake or Venetian red (whichever may have been used), until we arrive at pure yellow; then add, should the horizon have a rose or warm purply tint, a little lake first, and afterwards a very small addition of blue.

For the upper, or blue part of the sky, the board has to be turned, so that the top of the sky may lie nearest to the artist or student. We should have stated, that on all occasions the drawing-board is to be laid on an inclined plane, in order to allow the fluid colours to run gently downwards, and not in every direction, as might be the case were it laid on a level plane; the additional comfort of working, and of seeing the work, need not be described, as the first-mentioned cause for this position of the drawing is imperative. When the upper part of the sky is placed in the position named above, the student commences with clean water on the yellow part of the sky, *viz.* on the horizon, and bringing it downwards towards the blue in an even and straight line as quickly as possible, so as not to disturb the yellow. On approaching the rose tint, another kind of rose tint, perhaps a little bluer than the first, is to be added to the water, and converted gradually into violet, and lastly blue, as it arrives at the bottom of the paper. These tints are to be repeated both on the upper and lower parts of the sky, until the whole is something deeper than it is to remain;

it is then washed all over, and softened with the flat tin brush.

By this double process of working the sky, the gradations are kept of a pure and delicate hue, for it is not possible that tints in the lower part of the sky can be sullied by the blues, or the blue and violet tints of the sky be spoiled by the yellow and orange tints running into them, which would very often happen when the whole sky is attempted at once, *viz.* to continue the gradations directly from the blue into the horizon.

Lastly. After the softening, more tints are to be added in the same manner as on the commencement, until it becomes of the proper hue throughout, after which the clouds are to be laid in. The student should never forget that the sky is a most important part of the picture, for without a truly good sky no picture can be pronounced complete. It is this which gives the colour of the air tints, and influences the whole, and until it has been obtained, there can be little use in proceeding with the rest of the piece. That it is difficult to paint a sky in water-colours, we grant ; for were it otherwise, we should see more frequently a better class of skies than are too often produced : yet they are worth all the labour and study that can be given to them, and can only be obtained by accurate sketches from nature.

It has very often happened to the Author, that he has been without his sketch book and colours when there has been most occasion for them ; at such times he has, with his pocket-pencil and the back of a letter, made useful

notes, using terms for colours or tints sufficiently familiar to himself to enable him afterwards to make a coloured sketch, much nearer the truth than if he had trusted entirely to memory. The following, copied from some of his written notes, will shew the student how much may be done with very limited means.

“Top of the sky very light *tea-greenish* blue—gradating into white—yellow—orange and rose-tinted clouds in horizontal stripes; lower, crimson breaks; also horizontal, very near the lowest edge of the sky. Clouds of a laky purple joining the distant land in blue purply colour; distance of same colour—distant trees the same. A line of nearer trees and bushes of all the different hues of dark olive greens; the distant part of a large field on which these trees stand, of the same olive greens—middle of the field, cool drab and russet greens; near at hand, warm drab green—road in front, deep drab; this is the lightest part of the picture, except the sky.” The above is of course a sunset, with a low-placed sun.

Another, where the sun was visible, accompanied by a very slight sketch in lead on one quarter of a sheet of writing paper, part of a letter: “Top of sky purple grey—gradating into a very light tea green; nearer the sun, greenish orange tint, very light; sun, brilliant flame-colour; stripes of irregular clouds near the sun; above and below it of a pale orangy crimson; darker and more purple near the sun, and darkest where the sun was partly covered by them on both sides. Clouds along the horizon greenish grey—distant land, leaden grey; edges of

clouds near the sun, gold ; clouds above the sun, bright copper and gold."

The following is merely a memorandum of a subject, and general effect, taken whilst travelling on the top of a coach : " A grey and windy day ; boys cutting rushes in a small pool of water ; figures and rushes near them the only objects in light ; large trees behind the pool ; the whole not cold in colour."

Another memorandum is for effect and colour, taken in the same way : " White cottages stained with a variety of orange tints ; wood-work, lake and lamp-black ; trees at back, deep olive green ; very ancient and moss-grown red and mulberry-coloured tiles."

The following is from a note made at Seacombe, opposite Liverpool, during a thunder storm : " Sky at top drab-coloured clouds, with grey chalky lights, changing to very dark blackish purple clouds, in large masses—lights, French grey ; the purple masses carried into the sea leaving no visible separation ; the sea in front of a drab colour, gradually growing lighter as it approaches, with a few figures and small boats on the shore, in a very subdued tone, but not cold in colour ; very few buildings in Liverpool seen through the gloom, and these of a blueish white, scarcely visible ; the distant lightning in very small lemon-coloured shafts, accompanied by broad patches of a pale Indian red colour, in openings of the clouds."

These extracts are quite sufficient to shew the student that a great deal may be done by a very few notes made

at the moment, either with the pen or pencil, and if he will accustom himself to such notes, a little more copiously made out, he will find that he advances at a much greater rate than by merely trusting to his sketching from nature alone, either in colours or with the pencil ; for how often does it happen that an artist sets off amply provided with books and colours, and returns without having seen any important effect ; and again, when the most striking effects of colours, &c. occur, he as frequently finds himself unprepared. It is by missing no opportunity that the diligent advance rapidly, whilst he who waits for the lucky coincidences of being prepared for the striking appearances of nature at the moment they are offered to him, generally loses some of the most beautiful and impressive combinations of colour and effect, such as seldom or ever are seen twice in a life-time.

On looking back, the reader will find, that in the mode of working a gradation sky it is stated, that the second rose tint may be "a little bluer than the first ;" it has now to be mentioned, that not merely a rose tint, but every kind of tint in skies, will be made much clearer, and more even, by varying the mixture, in some small measure, from the one preceding it. For example, if we wish to make a brilliant blue in the sky, and for this purpose mix up a tint exactly to our wishes, say in a quantity, and then work this colour in continual repetitions of tint over tint, we shall not obtain any of the brilliancy, evenness, and purity, that another mode of proceeding will give. Suppose we make the first tint of lake and

indigo, the second of the same colours, but in different proportions, as a little more lake, and the third again different by adding still more lake, or a little more blue, the whole, when done, will be more even and more bright than if done by one mixture. Again, do not mix too many colours at once, for different colours laid over each other produce a much purer and brighter tint than when mixed with too many other colours.

Similar results will be found in other parts of the drawing; for example, if Raw Sienna be deepened by several applications of Raw Sienna, in place of being made the proper depth at once, it will not be so bright as it would if another yellow, as nearly like it as possible, had been used for the purpose. The same of Gamboge, and every other colour, is a common occurrence, and this holds good in regard to mixed colours. Or if a deep and rich-toned blue be required for a sky or distance, Indigo laid on first, and Cobalt afterwards, or the Cobalt first, and the Indigo upon it, will produce more power than can be got by mixing the two colours together before using them. These differences may, in a great measure, be occasioned by the difference in their specific gravity, as the heavier colours take their places on the paper much sooner than the lighter; this is immediately seen by mixing Vermillion with any less ponderous colour, as Indigo, Antwerp Blue, &c.; the vermillion has to be constantly stirred from the bottom of the mixture before the tint can be laid on the paper, and then great expertness is necessary, in order to keep the two colours flow-

ing together ; Cobalt is another colour of similar qualities, but not so troublesome. Thus it is well to mix colours as nearly similar in specific weight and mode of working as can be had, where great evenness of tints is desirable.

It is recommended to the student not to mix too many colours together, nor in the beginning to have too many in use at once, for the combinations of six or seven colours will certainly be made out with less trouble than twice or four times that number ; besides, there is a greater chance of harmony in using a small number of colours, and we never see with a limited palette those extraordinary and crude drawings produced, with which a tyro too often surprizes his teacher, and every other person, when he has had the whole range of a first-class colour box. We do not say that a large number of colours is unnecessary, rather the contrary, but it certainly requires much more skill to be enabled to select proper sets out of them for particular intentions, than can be expected from a beginner, especially in this department of painting, where their opposite qualities are not so well held together as in oil colours, or the still more adhesive vehicles with which they are very generally worked.

There is in oil painting so much greater power of doing some things than in water colours, that if asked to give an opinion as to the greater or less difficulties of the two styles, we should say, that up to a certain point, painting in oil is much the easier operation. The colours lie in the places where they are left by the brush ; they occasion no hard edges by being forgotten for a moment ; all kinds of

colours can be compelled to hold together, and work agreeably from the brush ; a complete set or sets of tints can be made up, can be prepared ready for the palette in the most deliberate manner, and used as deliberately, without the least fear of the changes that such sets of tints mixed in water colours would be undergoing every moment, particularly in summer, or in a very warm room, by evaporation.

The facility with which such things are managed in oils render it the easier of the two ; but when the student has acquired that promptness so essential in the commencement of a water-colour drawing, he will find the finishing processes comparatively a work of leisure. If an idea occurs to him, it can be instantly executed ; every thing being at all times ready, the work becomes immediately dry, and safe from injury ; his colours require no preparation, nor is there risk of soiling the neatest dress ; they can be as suddenly laid down, if unexpectedly called from the drawing, and if forgotten, no harm happens to the colours so left ; with many other conveniences, which, combined, have given this method of working colours a degree of popularity which must long continue. Indeed, oil colours are not of equal value for sketches, or slight works to be kept in portfolios ; the change they undergo is so great, as to render them almost useless in a few years, whilst water-coloured sketches, however slight, are always the same, and whatever value they might have when first done, is continued to an indefinite period.

As we have already said, in commencing a drawing,

the first colours are usually rubbed on common white plates, or palettes, and we lay in the whole of the sky and distances something deeper than the intended effect ; to these tints on the plates we add colours from the tin boxes, in which they are softened by water being placed on them, in small quantities, for the middle distances ; we have then done with the trouble and loss of time occasioned by rubbing colours, and confine ourselves to the tin boxes entirely for the foregrounds, and paint in the chief objects with the half-melted colours, using them just sufficiently fluid to sink well into the paper, and to give with some degree of precision the forms and characters of objects, rather in masses than in detail ; these are left for the finishing processes. Nor must we omit again to mention the necessity of using the richest specimens of every foreground tint, omitting wholly (unless in particular cases) the colder colours.

The drawing is now *laid in*, and we commence another series of operations, as soon as the paper is dry. This consists in taking a large flat camel's-hair brush, made in tin of different breadths, and with clean water only we commence with the sky, washing the drawing in every direction, to blend and unite the tints of the sky and clouds together, so as to give a generalizing tint to the whole, such as we see in nature, where the sky and clouds, from the zenith to the horizon, invariably partake of the universal air tint that every day and every hour, as well as the greater impressions of seasons, &c. produce. This operation requires great care, and can only be success-

fully performed after many trials, attending always to a very material point, without which the sky, &c. will have blemishes, that nothing less than taking out the work entirely by the sponge can remedy, *viz.* to first damp the drawing equally all over, and to keep it in this state till the general fusing and blending operations are completed; without this the colours come off in patches, most in those places which have been longest wet.

Whilst the softening process is going on, the board to which the drawing is pasted is to be laid in an inclined position, so that the soiled water may be carried down to the lower edge of the drawing, and so run off. The student would find it exceedingly convenient not to have laid in the large trees usual on foregrounds, or any masses of green standing against the sky, for the extension of these colours into sky and distances by the softening process, occasions such an impurity of tints, that an adept only can bring them again to their pristine purity, by plentiful ablutions of clean water poured over the drawing until the tints of the sky, &c. are restored to their original clearness. In washing and softening the colours of the foreground, it is not at all desirable that much colour should be taken off, for as we must suppose them to be laid in with colours and tints true to the intended effect, much less softening or blending is required in them than in the more distant parts, and the finish is better obtained by other means, than by the generalizing application of the flat brush.

It not unfrequently happens that changes have to be

made in colours after they are laid in, especially where the student does not work from a previously coloured sketch (a practice that the tyro should always follow, when large drawings have to be made); these changes, sometimes of masses, sometimes of colours, lights, or shadows, or for the sake of introducing a piece of water on the foreground, as a standing pool, or rivulet, &c. when requisite, are best made either by a piece of linen, or cotton cloth, dipped in water, and wrapped round the forefinger, or the sponge, according to the size of the work to be taken out. Where gravel, or sandy sea, or river shores, have to be wrought into finish, the wet cloth on the finger will most readily give the wished-for effect, by gently rubbing off the surface of the colours; no other process can produce the same result, for the grain of the paper permits the colours only to come off which are on the summits of these granulations, leaving in all the small and intervening valleys (if we may be allowed this mode of expression) a modicum of deeper colours than those left on the highest surface, and very often small lights are found in appropriate places, which only require a shaded side and a cast shadow to represent stones and gravel; nor is it amiss to avail ourselves of these accidents in the minor concerns of the picture, whenever they so occur, that the character of the part where they happen may be strengthened by them, and the general effect of the whole not disturbed. If, for example, in the haste or carelessness too often attendant on a first laying in of the picture, accidental lights be formed on the light side of

a tree, and semi-lights on the shade side of the same object, both indicating clusters of leaves, &c. suitable to the character of the tree, it will be infinitely better to follow out these tints in the finishing, than to *muddle* the whole tree head by converting these indications into shadows, and placing new lights in places where shadows are rather indicated. It is not here intended to recommend the student to trust to accidents in the construction of his picture, for whoever does so, will be as greatly disappointed as those who, in the common affairs of life, trust to chance rather than their own forecast.

In finishing the picture, a great deal has to be done by taking out the lights and half-lights, and the placing of new colours and tints in those places which require enriching. There are various ways of taking off the lights or colours that are to be changed. Where the colour is not to be entirely removed, a little water laid on the part with a brush, and immediately pressed with a piece of cotton or linen cloth, and afterwards rubbed with a dry part of the same cloth, will bring off quite as much as may be wanted; but when the colour has to be wholly changed, it will be necessary to take it off so completely, as to leave the paper perfectly white, as in the brilliant lights of trees, vegetation of other kinds, water, edges of clouds, &c. These are managed by laying water on the places, with the wished-for forms accurately defined—a piece of clean blotting paper, after allowing the water to rest for a few moments, is to be gently pressed on the wet places, after which, clean Indian rubber, or bread crumbs,

rubbled over the same places, will effectually clear the parts from every particle of colour. It is in this manner only that light objects seen against a dark ground can be effectively treated, and many trials must be made before the surface can be left in good order for receiving fresh colours, where neatness of finish is required, as figures, shipping, &c.

It must be obvious to all, that the greatest care has to be used in seeing that every part of the picture may be quite dry, except those places where the colours are to be taken off, or serious mischief may be done by a single touch of the Indian rubber, or cloth. When the half-lights are taken up, they are not to be left in the state the cloth may leave them in, but must receive other colours, suitable to the required hue of the object, and surrounding objects, and also with the same reference to the whole picture. This also has to be done in those lights where the white paper has been exposed, in both avoiding, as much as possible, exceeding the edges of the lights; for we suppose that the foundation tints have been previously brought to a right tone of colour, therefore the addition of other colours, however light, must do harm.

After the lights are reduced to their proper hues, the shadows claim the attention of the student, and some of these may now appear changed in tint, by the contrast of the new colours of the lights placed near them; for colours, or tints, *per se*, are not so positive as to preserve the same appearance under all circumstances, being dependant for every delicacy of tint on the colours which

are near them ; thus greens are more vivid in contact with reds, and reds are more vivid also in contact with greens, their natural contrasts. The Author begs to refer the amateur and student to his work on the "Theory of Painting, and Index of Colours," for a detailed account of the power of colours in contrast, &c., as it would take up more space than can be spared in the present work, which is intended to be chiefly practical. If the painting has been wrought from an approved coloured sketch, the shadows to be brought into tone cannot want more than a few glazings of cool or warm tints. The colours required for the best finishing tints of shadows ought to consist of the different degrees of cool colours, as in all cases, more especially in shade tints, the best and most natural effects are produced by laying cool glazings over a warm ground colour; and when the picture is in this proper state, the most powerful shade tints for vegetation on the foreground are those from indigo alone, very sparingly used, or with the addition of Lake and Vandyke Brown, or Burnt Sienna, for almost every other kind of object, of course varied in their proportions. Lamp-black and Indian Yellow, with some small quantity of a warmer colour, as Burnt Sienna for lights, and without, for the shadows, make greens that admirably represent the colours produced by an English cloudy sky ; but it is not possible to say (nor shall we attempt this impossibility), "take this and that colour for the sky, such and such for clouds, mixtures of 2, 3, and 4, for distances," &c. &c., as it cannot but be self-evident

that the absolutely infinite varieties of tints, under all the possible combinations of light and shade, depending also on climate, season, and innumerable other circumstances, must require each their own separate hues and tints for all the different parts of the picture ; the best advice we can offer is, to mix the colours as described in another place, and at the same time copy a good drawing.

In his "Theory of Painting," the Author has shewn, by nearly one hundred coloured specimens, many degrees of depth produceable from the same mixture, without any addition of water or colours, and this can only be explained by specimens so coloured.

Portraits in water-colours require exactly the same tints that are used in oils ; but they are more readily obtained in the former method, as no white enters into their composition. A perfectly smooth drawing paper is to be selected, yet however smooth the paper may be, the portrait, when finished, will constantly appear best, and be seen to most advantage, if hung with that side or edge of the picture towards the light which, whilst painting, was the side from which the light came. This, whenever not attended to, is the cause of much disappointment, both to the artist and spectators, for the smoothest papers have certain inequalities of surface, which hold a shade tint in the direction from the light ; and when all these are reversed, the allowances which the artist in finishing would naturally make for them, whether conscious or otherwise of their existence, would also be reversed, and thus a double operation against the good appearance of

the work takes place. This renders miniatures on ivory preferable; the surface is always perfect with common care. But whether on ivory or paper, let the student paint in his first colourings, and finish in the way we have already so frequently recommended, and which we cannot avoid repeating once more, *viz.* with clear, bright, and warm colours, and to be exceedingly careful not to disturb the under colours; to place the greys for shadows in the face and neck, made with Ultramarine and Venetian Red; to leave until the last the darkest touches, for which it is usual to employ Carmine and black, or Burnt Carmine; where yellows are wanted in the flesh colours, the best pale Yellow Ochre will be the most suitable; and not to use gum-water, except in the darkest places, as the deepest shades of black or blue dress, the hair, or the darkest part of the eye, nostril, lips, &c. and always in the most sparing manner.

In conclusion, we have only to remark, that the student should be careful always to have his brushes well washed out in clean water, for it is inconceivable how much trouble is necessary to cleanse a brush from some of the darker colours, when it has been put away with much colour in it; in short, a brush that has been allowed to dry filled with Indian ink, can scarcely ever be again made fit for delicate colours.

The best brushes are those called soft brown sables, and which will hold, when full of colour, a good point. There is another sable, the red, which is not so useful in water-colours, being too stiff, a bad quality where the

under colours are so easily disturbed, and to avoid which we have to be so constantly careful. The sizes should be well varied, and suited to the extent of surface, and at all times not used with too much colour, *viz.* to be used full, but not so much so as to run out, or be otherwise unmanageable. Sometimes colours refuse to work on certain places, and always on paper which has not been wet, or sponged ; a little prepared ox-gall (sold at the colour-makers) will remedy this evil ; but the less is used the better, for the colours are not easily removed where it has been freely used in them.

## CHAPTER IX.

### COLOURS AND THEIR PROPERTIES, MIXED TINTS, &c.

#### WHITES.

WHITE LEAD ; an oxide of lead. Sometimes this is adulterated with common whiting, which spoils the colour for oil painting. White lead, under all its various names of Flake White, Nottingham White, sulphate of lead, &c. &c., stands well in oil or varnish ; the heaviest are the best. These mix well with most colours, except the orange and yellows made from lead.

ZINC WHITE has not so much body as white lead, but stands well in oil, and recommends itself by its perfectly harmless qualities with regard to health : it is an oxide of zinc.

TIN WHITE, an excellent white for enamel painting ; but does not dry well in oil, nor has it much body.

PEARL WHITE, prepared from the mother-o'-pearl ; excellent in water-colours, but wants body in oils.

BARYTIC WHITE, or *Constant White*. Where a white is required in oils for glazing, the Barytic White seems well suited, but has not much body ; in water-colours it deserves its name (*constant*), and makes a beautiful clear white.

**FLAKE WHITE** is a superior kind of white lead, and is most in use as an oil colour; in water, all the oxides of lead become black.

#### YELLOWS.

**BROWN OCHRE** is a dark or brownish kind of Yellow Ochre, a colour that stands well both in oil and water-colours.

**YELLOW OCHRE** is an earth found in several parts of England and elsewhere. This is sometimes called *Oxford Ochre*, being abundant in that neighbourhood. The colouring matter is derived from iron; it is a very useful colour, not inclined to change, unless sometimes particular qualities of it may become a little darker; we have also known it occasionally to fade a trifle, but it may generally be esteemed a permanent colour.

**ROMAN OCHRE** would appear to be only another name for Brown Ochre.

**STONE OCHRE.** This is an earth frequently found enclosed in stones, and is of different tints, from grey, through brown, up to yellow. It partake sentirely of the nature of other ochres.

**CHROME YELLOW** " is a chromate of lead. Chrome is a metallic substance of a greyish white colour, extremely brittle, acidifiable with great difficulty by nitric acid, and then capable of combining with caustic potash into a Lemon Yellow. This salt being added to a solution of nitrate of lead, occasions a deep orange-coloured precipitate of chromated lead. Chrome is capable of furnishing some fine pigments to the painter and enameller, and it

will tinge glass with a true Emerald Green ; the colouring matter of this beautiful gem being proved to be this very metallic oxide." (Rees' Cyclopædia.) The Chrome Yellow is generally made into several varieties of tint, some of them going into Orange ; but we fear that the colours produced by chromates of lead must in time be classed among the changeable pigments : nor shall we lose much by abstaining from their use, as they are too gay for the usual class of colours employed, neither do they well assimilate with all, as Mr. Field is of opinion that they destroy both the Prussian and Antwerp Blues when mixed for greens.

NAPLES YELLOW is in great use at the present day, although it does not appear to have been known to the artists of ancient times. This colour stands extremely well, but it must be carefully prepared without the contact of iron, which immediately changes its hue : therefore it may be presumed that the ochres which contain an oxide of iron, as well as other colours of a similar nature, will destroy the purity of Naples Yellow when mixed with them. This colour is a mixture of the oxides of antimony and lead.

LEMON YELLOW, as described by Mr. Field, " is of a beautiful light vivid colour ; in body and opacity it is nearly equal to Naples Yellow and Masticot, but much more pure and lucid in colour and tint, at the same time not liable to change by damp, sulphureous or impure air, nor by the action of light, nor by the steel palette knife, nor by mixture with white lead, or other pigments, either in water or in oil, in each of which vehicles it works well.

Lemon Yellow is principally adapted to high lights in painting. In water it exceeds Gamboge in brightness, and in mixture therewith improves its beauty. This mixture goes readily into oil; indeed it is the best and easiest way of rendering Gamboge diffusible as an oil colour; simple solution of Gamboge in a little water, and trituration of the Lemon Yellow therewith, being all that is requisite for this purpose." This Lemon Yellow has been produced by Mr. Field from platina, which has also afforded him another colour, called Platina Yellow, resembling Terra di Sienna, approaching Gallstones in richness and depth and can be produced of many tints:—he describes both these Yellows as working well and permanent both in oil and water-colours.

KING's YELLOW, a sulphuret of arsenic, stands well in oil when not used with improper mixtures, particularly avoiding the oxides of lead. This is an exceedingly unpleasant colour in working, affecting the head by its highly poisonous qualities. The orpiments are all similarly composed, and have the same qualities.

PATENT YELLOW is a good working colour of a very bright tint, but of too fugitive a nature to be recommended; it is a cloruret of lead.

MASTICOT is a preparation of lead (an oxide), not always of the same tint, sometimes being found of a beautiful pale straw colour, at others of a pale grey or ashen colour; it is permanent when used by itself, but mixed with other colours it frequently is found too fugitive.

TURBITH MINERAL, a pale lemon colour, but so liable to changes that it must not be recommended ; it is a sulphate or sub-sulphate of mercury.

TERRA DI SIENNA is a most useful and valuable colour, either in water or in oils ; its colour is a beautiful deep transparent Yellow, derived from iron ; it also has much body, and is permanent under all the usual influences, as sun, air, &c.

INDIAN YELLOW is supposed to be produced from the leaves of a tree called *memecylon tinctorium*, improved by the urine of the buffalo, Indian cow, or camel. It fades both in oil and water-colours, but most so in the former : consequently has little value to the painter in oils.

YELLOW LAKE is a bright Yellow, of most beautiful tint for transparent painting in oils, as glazing Yellows or Greens on foregrounds ; and it is to be regretted that so excellent a Yellow should be too fleeting to be valuable : notwithstanding, many use it in landscape with great effect.

ITALIAN PINK, *Dutch Pink*, &c. These are Yellows obtained from a vegetable dye, as infusion of French berries, &c ; with these infusions whitening and other substances are stained : such colours of course cannot be lasting. The Italian Pink is a rich colour, and like Yellow Lake, would be a valuable colour to the landscape painter in oils if more permanent (*see CARMINE.*)

#### REDS.

CARMINE. There are two distinct kinds of Carmine,

the one made from cochineal, the other from madder. The first of these is a precipitate from the colouring matter of the cochineal insect, which is readily affected by the agency of alum, or the oxide of tin, as the cochineal, as well as all vegetable colours which are soluble in water, have an affinity for some earths and metallic oxides. These precipitates are called Lakes, and are of different colours, chiefly Red and Yellow. A solution of alum added to an infusion of madder, causes a mutual decomposition, and the colouring particles of the madder fall down in combination with a portion of the alum. The addition of an alkali assists the precipitation, but by too much of it the Reds are made of a purplish hue, and the Yellows become more brown or orange. Acids give to Reds more of the Scarlet, and to Yellows a paler colour. Quercition bark makes, in this way, an excellent Yellow Lake; Turmeric is not sufficiently permanent. Broom-flowers make a very fine Yellow. Tincture of Anotto prepared with alum makes a bright Orange, or boiled with pearl-ashes and strained through paper. In short, all the Lakes are made from the watery solution of a colouring matter, combined either with alum or tin. The inferior Red Lakes are made from Brazil wood in this manner: the best common Red Lakes (excepting the madders) are made from refuse solutions, after Carmine, or a still brighter Lake colour, have been obtained, from shreds of scarlet cloth boiled in pearl-ashes, which extract the colour; these are then precipitated by a solution of alum. The richest deep-coloured

Reds are obtained by using a small quantity of ammonia. Ammonia also, in solution with Carmine, gives the best Rose and Pink colours. The best Crimsons are also obtained from cochineal and madder.

**LAKE** (*see above, CARMINE*). All the Lakes are slow driers in oil, and not sufficiently permanent. From this censure the madder colours are to be excepted.

**MADDER LAKES.**—These are obtained of different hues and degrees of depth, from the richest Carmine tint to a pale Rose colour. The madder colours are made by macerating the root of the madder plant in soft water, which is done by enclosing the root in a strong bag, and subjecting it to frequent pressure: the juice is to be boiled; afterwards add alum; then carbonate of potash, which will excite effervescence and precipitate a coloured Lake. In this manner a fourth part of an excellent Madder Lake will be gained from a given quantity of good Madder. A second process will give out an inferior Lake. The purpose of effervesing the extract is to get rid of the mucilage of the root. The Dutch Madders have generally been thought to have most of the colouring property in them; these Lakes of Madder are permanent, and are a valuable acquisition to our stock of colours, for, till they were discovered, we had no Lakes or Carmines that could be depended upon. They mix well with all other colours, and if any change has yet been perceptible, it is an improvement of tint. If these Lakes should be adulterated by the addition of cochineal, it may be discovered by testing them in liquid ammonia; this dissolves

the cochineal, and leaves the madder untouched. In the same way, the Carmines and Lakes made from cochineal tested in ammonia will entirely dissolve, and whatever is spurious falls to the bottom untouched.

**SCARLET LAKE.** A most beautiful colour, but not permanent in oil or water-colours, suffering most from strong light. This is prepared from cochineal, with an addition of Vermillion, which decreases its permanency by a quality that Vermillion possesses in common with the preparations of lead, *viz.* that of destroying more quickly all the preparations from the cochineal insect.

**VERMILLION**, in its crude state called *Cinnabar*. In many places a pure native Cinnabar is found, particularly in China and Peru. This is an excellent and permanent colour when pure ; but with adulterations of Red lead, it cannot any longer be called Vermillion, and must change according to the quantity of the adulteration, and become black, &c. Vermillion has the property of entirely disappearing when tested by fire, but almost under every other circumstance will be found, both in oil and water-colours, the most durable of all the colours we possess. The factitious Cinnabar has less of the crimson tint than the Chinese. Vermillion is a sulphuret of mercury.

**IODINE SCARLET** ; a most powerful scarlet, but not to be trusted, being too fugacious and changeable. In tint it is almost too vivid for agreement with other colours, and the artist will do well to avoid it, until a more certain preparation can be made.

**VENETIAN RED** ; a preparation from sulphate of iron.

The best Venetian Reds possess a tint inclining more to the Indian Red than the light Red. Venetian Red is a valuable and permanent colour.

**LIGHT RED** is an excellent and very useful colour, both in water and oils ; it is made by burning in an open fire the Brown or Yellow ochres. We prefer the latter, as having greater brightness and less inclination to the orange tint. This colour dries well, and is permanent.

**INDIAN RED** obtains its name from having been originally brought from the East-Indies. It is a very serviceable colour, and stands well in oil or water-colours. That which inclines to the rose tint is most esteemed. Indian Red is an iron ore, and varies much in tint, but is easily obtained of excellent quality.

**ROSE PINK.** Common whitening, stained with an infusion of Brazil wood ; of no use or value to the artist.

**LAC LAKE** is made from seed-lac, the nest of an insect the (*coccus lacca*), and is collected from the branches of trees and reeds in the East-Indies. The colouring matter which it contains is of a deep and rich hue, and most probably was the lake used by the old masters. This colour stands much better than the Lakes obtained from cochineal.

**COLCOTHAR**, a useful colour of a deep red tinge ; it is a sulphate of iron.

#### ORANGE:

**BURNT TERRA DI SIENNA** is a deep and transparent Orange, produced from the Raw Sienna burned ; it is permanent, mixes well with other colours, and a good drier.

SPANISH OCHRE, or *Orange Ochre*, is produced from the best Yellow Ochre burned in an open fire ; dries well and is permanent.

JAUNE DE MARS, a colour of the same nature as the above, being an iron ochre.

ORANGE VERMILLION is a new colour made from Mercury, not unlike Red Lead, but of a warmer colour ; works well in oil, has great body, is permanent, and a good drier. We have no other orange possessing so many good qualities, or of so powerful a tint.

DAMONICO has the colour and properties of burnt Roman Ochre and Terra di Sienna. This is a colour not subject to change, and works well with others.

#### BROWNS.

BROWN PINK is a beautiful glazing colour in oils, but does not stand well ; perhaps it belongs more to the class of Greens than Browns, although from its name we give it a place here ; it is made from the decoction of French berries, &c., and precipitated in the usual way with other vegetable Lakes. It is not a good drier, and appears to be of more value as a water-colour than in oils. Brown Pink has so little body that it cannot be used where substantial painting is required ; mixtures with white destroy it, therefore where an alteration has to be made in this colour by mixture, perhaps Terra Verte will be found the best for heightening and giving body to it, and Burnt Umber may be used to make it deeper in tone.

BURNT UMBER is a rich deep brown, made by burning the Raw Umber ; it dries well and is permanent.

**RAW UMBER.** A cool yellowish brown, one of the ochres, a good drier and permanent. It makes a most useful colour either in oils or water, but perhaps is more generally used in the latter vehicle than the former. This earth is found in many parts of England and Wales, amongst the lead and coal mines.

**VANDYKE BROWN.** A colour in great use and estimation. It is found every where in the neighbourhood of bogs, being a species of bog earth. The finest specimens the author has seen of this colour have been found imbedded in stones, but in quantities too small to be useful. This colour requires an addition of drier, or a strong drying oil ; it stands well, and must be considered as one of our most valuable browns. There are many other browns, differing more in name than quality, as *Castile Earth*, or more properly *Cassel Earth*, &c. These earths are found, like Vandyke Brown, in England and elsewhere, and possess nearly all the qualities of Vandyke Brown ; the small difference that exists is in favour of the latter as a glazing colour, and of the former for body.

**REUBEN'S BROWN,** an excellent colour in working, rather more opaque than Vandyke Brown and of a yellower tint, and is equally permanent.

**BITUMEN, or Asphaltum.** This is used with spirit of turpentine as a glazing colour. The colour is a beautiful brown : but it cannot be recommended, on account of the tendency it has to crack, particularly when freely used for great force as a glazing or toning colour. It is a mineral pitch found in various places, but chiefly in Persia and on the borders of the Dead Sea.

MUMMY is found in the tombs of Egypt, and must be considered as the debris of the embalmed bodies : consequently containing bitumen in combination with animal matter. It is something similar to asphaltum, but of more body and stands better as a colour, nor does it crack : of course it is preferable.

MADDER BROWN. Made from the madder root, of several tints, inclining to orange or sometimes purple. These browns do not dry so well in oils as could be wished, but for oils the darkest of them, called Intense Brown, is the most useful. They are like other preparations from madder, all permanent. An interesting account of the culture and preparation of the madder plant (*Rubia Tinctoria*) is to be found in the original editions of 'Miller's Gardener's Dictionary,' and as the Dutch madders have always been considered the best, he gives their method of cultivation, which perhaps has not been improved upon since his day.

COLOGNE EARTH contains, notwithstanding its name, much of vegetable remains. It has something of the taste of oak bark, and appears to be the produce of wood that has laid long in the earth. It is found in England, at the Mendip hills and other places, but the German is to be preferred. This colour has most of the properties of Vandyke Brown. The snuff-makers on the Continent use much more of this substance for colouring and adulterating their snuffs than is consumed by artists, although as a colour it has always been in estimation.

BONE BROWN. This and a similar colour made from

ivory chips, are not in such general use as the Blacks made by burning the same substances ; the difference consists in not carrying the charring process so far for the brown tints as the blacks. Neither the ivory blacks or browns, or those produced from bones, dry well, but they are permanent.

In Mr. Field's work on colours we find one mentioned, called *Manganese Brown*, described as perfectly durable in oils and water-colours, of a deep tint and good body. Also a Brown Lake, obtained from *Horse Chestnuts*, which is stated to be permanent, both in oil and water-colours, and of a warmer tint than Brown Pink.

#### GREENS.

**TERRA VERTE** is a hard clay, found in Cyprus, France, and many other places. The best is found in the neighbourhood of Verona ; it has been obtained nearly of equal value in the Mendip hills. This is an excellent colour, and seems to have been much used by the old masters. It forms a Brown by burning.

**EMERALD GREEN**, a brilliant colour, more useful in water than in oils ; and in the former it can only be used as a body-colour, possessing no transparency. This is a factitious substance ; the colouring property is obtained from copper.

There are other Greens, as *Cobalt Green*, *Chrome Green*, *Scheele's Green*, *Prussian Green*, *Schwein Green*, &c. &c. ; but the artist will find it much better to compound his green tint from the various yellows, browns, and blues, than to encumber his palette with too many

colours, especially as they are seldom of the tint that he wants, without an admixture; and in most cases the whole colour is as readily compounded as the admixture.

### BLUES.

ULTRAMARINE is obtained from the lapis lazuli, a marble of a mixed nature, veined with gold, bearing a high polish, but of not much lustre; the colour is given by a blue sulphuret of iron. According to Klaproth, it is composed of 46 silica, 14·5 of alumina, 28 of carbonate of lime, 6·5 of lime, 3 of oxide of iron, and 2 of water. The stone is heated and then suddenly quenched in water; this renders it friable, and it is then easily ground or crushed into an impalpable powder, from which by a variety of workings with water the valuable colour is gained, which is one of the best we have, having the double property of being a good glazing and body-colour of much substance. Few colours stand so well, and could it be had at a moderate price, perhaps it would supersede the use of all other blues. It is not always of the same tint, varying from the green to the purple hues, but in so small a measure that considerable judgment is requisite to perceive these gradations in the best colour. One of the best tests for Ultramarine is acid, which perfectly destroys the colour if good.

ULTRAMARINE ASHES. An inferior quality of Ultramarine, of a pale greyish blue tint, useful as far as its power can be carried. Professor Gmelin has described, in the 37th volume of the *Annales de Chimie et de Physique*, a

method of making a very good imitation of Ultramarine, the basis of which is composed of silex, alumine, and soda, coloured by a sulphuret of sodium.

**COBALT BLUE.** A most beautiful colour when perfect, but not quite so permanent as Ultramarine ; it works well in water and oils, and also dries well in the latter.

**SMALT.** This is produced from an intensely blue glass, made of calcined cobalt, combined with a vitrifiable flux ; this is poured hot into cold water, which breaks it in every direction, and afterwards is reduced by grinding into a fine powder. This makes a fine deep-toned blue, in both oil and water.

**ROYAL BLUE.** A superior kind of Smalt. All the preparations of Smalt stand better in water than in oils.

**PRUSSIAN BLUE** is a combination of the Prussic acid with iron ; a powerful colour, mixing well with others, but does not possess the permanency of Ultramarine, generally becoming much darker, both in oil and water-colours. It is a very slow drier in oils.

**ANTWERP BLUE** is a better colour than the above ; brighter, and less liable to change, having an earthy base.

**BLUE VERDITER.** A mineral blue, made of the *Lapis Armenus*, found in the mountains of Hungary. This is a cool blue, but without transparency, and liable to get a greenish hue both in oils and water. The Verditer Blue now in use is a factitious preparation of chalk, coloured by copper, and is of no value.

## PURPLE.

MADDER PURPLE, or *Field's Purple*, is described in his “Chromatography” as a “deep and rich Carmine; its richness, durability, transparency, and superiority of colour, have given it the preference to the purple of gold. (This latter is a rich and powerful colour of great durability, varying in hue from a deep crimson to a murrey, or dark purple, an excellent although expensive colour; it is a compound oxide, precipitated by mixing the solutions of gold and tin.) The Madder Purple dries well; it is pure and permanent in its tints. It neither gives nor sustains injury from other colours, and is a very eligible pigment.”

BURNT CARMINE. This should be classed amongst the *Browns*, as one of the most intense; it is simply what its name denotes, and may be obtained by burning either the carmine of madder, or cochineal, on a small saucer in the open fire; or if a deeper tint be required, by charring it in a small and well-closed crucible. To the experimentalist this method of treating colours will give a novel list, by changing their hues, without in the least destroying their permanency, and in almost all cases where the unburnt colour does not readily dry in oils, it will be found that the charring, or burning in an open fire, will give to them this very desirable quality.

If the student or artist should wish for a more extensive list of colours, we must refer him to the “Chromatography,” an excellent and interesting work by Mr. Field, which we recommend to the notice of our readers; but

he will find in the above list a much greater number than he can well use, for on most occasions we may say that the palette of few colours will make a more harmonious and a better picture, than one in which a larger number is employed.

#### BLACKS.

**IVORY BLACK** and Bone Black are prepared in the same way, *viz.* by charring in a crucible. The former is generally much adulterated with the latter. The chips of ivory should be well soaked in linseed oil previous to burning. Both these colours are permanent, but bad driers. The Ivory Black is the most useful we have in this division of colours.

**BLUE BLACK** and Frankfort Black are made from wood, shells of stone fruit, shells of walnuts, &c. The best is obtained from vine stalks, charred in luted (or closed) vessels, where the air is well excluded. The black from walnut-shells is of a greyish colour, and not of much body. Cork has also been tried in the same manner, and makes a colour very similar to that of other vegetable matters ; this has the name of Spanish Black.

**LAMP BLACK** is an intensely deep black, obtained from various oily substances by burning, as turpentine, tar, and every kind of resinous matter, the smoke of which, collected, makes the colour, without any other preparation ; this black dries badly in oil. A purple black is mentioned by Field as a colour of good body, and one that dries well ; this is made from the madder plant.

## COLOURS USED IN OIL AND WATER-COLOUR PAINTING.

The following lists of colours we have borrowed from Mr. Field's valuable work, "Chromatography," and as we have had experience of the good or bad qualities of a very large portion of them, and found his opinion correct, we most willingly accept it on those few newly-discovered colours which we have not yet sufficiently tried.

"Pigments not at all or little liable to change by the action of light, oxygen, and pure air; nor by the opposite influences of shade, sulphuretted hydrogen, damp, and impure air; nor by the action of lead, or iron.

WHITE.	Venetian Red, Indian Red.
Zinc White,	
True Pearl White,	ORANGE.
Constant or Barytic White,	Orange Vermillion,
Tin White,	Orange Ochre,
The pure Earths.	Jaune de Mars,
YELLOW.	Burnt Sienna Earth,
Yellow Ochre,	Burnt Roman Ochre,
Oxford Ochre,	Damonico,
Roman Ochre,	Light Red.
Sienna Earth,	GREEN.
Stone Ochre,	Chrome Green,
Brown Ochre,	Terre Verte,
Platina Yellow,	Cobalt Green.
Lemon Yellow.	PURPLE.
RED.	Gold Purple,
Vermillion,	Madder Purple,
Madder Lakes,	Purple Ochre.
Madder Carmines,	RUSSET.
Red Ochre,	Russet Rubiate, or
Light Red,	Madder Brown,

Intense Russet,	Phosphate of Iron,
Orange Russet.	Ultramarine Ashes,
<b>BROWN AND SEMI-NEUTRAL.</b>	
Vandyke Brown,	Sepia,
Reuben's Brown,	Manganese Brown,
Bistre,	Bone and Ivory Browns.
Raw Umber,	
Burnt Umber,	
Marrone Lake,	
Cassel Earth,	<b>BLUE.</b>
Cologne Earth,	Ultramarine,
Antwerp Brown,	Blue Ochre,
Hypocastanum, or	
Chestnut Brown,	
Asphaltum,	<b>BLACK.</b>
Mummy,	Ivory Black,
	Graphite,
	Lamp Black,
	Frankfort Black,
	Mineral Black,
	Black Chalk,
	Indian Ink.

“ This table contains all the best and most permanent pigments, and such as are eligible for water and oil painting. It demonstrates that the best pigments are also the most numerous, and in these respects stands opposed to the three tables preceding;” One of which we subjoin, and again agree to the accuracy of Mr. Field’s observations.

“ Of pigments, the colours of which suffer different degrees of change by the action of light, oxygen, and pure air; but are little or not at all affected by shade, sulphuretted hydrogen, damp, and foul air.

YELLOW.	Yellow Orpiment,
Yellow Lake,	King’s Yellow,
Dutch Pink,	Chinese Yellow,
English Pink,	Gamboge,
Italian Pink,	Gallstone,

Indian Yellow,	Prussian Blue.
Quercitron Bark.	ORANGE.
RED.	
Rose Pink,	Orange Orpiment,
Carmine,	Golden Sulphate of Antimony.
Common Lake,	GREEN.
Florence Lake,	Sap Green.
Scarlet Lake,	PURPLE.
Hamborough Lake,	Purple Lake,
Kermes,	Burnt Carmine,
Rouge.	Lac Lake.
BLUE.	BROWN.
Indigo,	Brown Pink,
Intense Blue,	Cassea Fistula,
Antwerp Blue,	Light Bone Brown.

"None of the pigments in the above list are eminent for permanence. No white or black pigment belongs to this class, nor does any tertiary, and a few only of the original semi-neutrals. Most of those included in the list fade, or become lighter by time, and also, in general, less bright."

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### M I X E D T I N T S,

*Arranged for the use of Painters in Water-Colours.*

It is quite impossible for any one, however great his practice may have been, to arrange a set or sets of tints that are to be applied to particular uses only, and to say, these are only to be used in such and such manners, as a certain mixture for skies only, another for foregrounds,

and so on ; for it is well known that every kind of mixture may come into every kind of place, and into all objects, if not as a local colour or shade tint, yet they might be employed, and even made necessary in such seemingly incongruous appliances as a light green tint on skies, clouds, or faces, &c. where other or first tints have been made too red, as on a grey cloud which has too much of red in it, or an actually red cloud, which it is found necessary to change into grey ; these can only be managed by a tint of a greenish hue, or possibly a perfect green will be wanted to convert the original colour into the required grey, &c. &c. ; this, by the practical artist, is well understood, but both to the practical artist and the amateur we address these observations, that it may not be supposed we limit the following list of mixed tints to no other purposes but those mentioned ; yet so useful has the Author of the present work found the following list, accompanied by the coloured specimens, as they stand at the end of his " Theory of Painting," that he does not hesitate to recommend to the student and amateur the construction of tables of mixed tints from the following sets, as much the quickest way of becoming acquainted with the powers of all the different colours employed, and he will soon discover that many of these mixtures, perhaps marked as suitable tints for clouds and distances, under particular circumstances, and used stronger, will be equally suitable in certain parts of rocks, stumps of trees, &c. &c. on the foregrounds.

**TABLE OF MIXED TINTS,**  
**For Skies, Clouds, and Distances.**

Lake and Indigo,	Madder Lake, Cobalt, and Yellow Ochre,
Lake and Cobalt,	Indian Red and Cobalt,
Lake, Venetian Red, and Indigo,	Gamboge, Lake, and Indigo,
go,	Gamboge, Madder Lake, and Indigo,
Venetian Red and Indigo,	Gamboge, Madder Lake, and Antwerp Blue,
Indian Red and Indigo,	Indian Red, Indigo, and Yellow Ochre,
Light Red and Indigo,	Madder Lake and Cobalt,
Lamp Black and Indian Red,	Yellow Ochre, Lake, and Indigo,
Madder Brown and Indigo,	
Lamp Black and Lake,	
Lamp Black, Lake, and Cobalt,	
Lamp Black, Lake, and Indigo,	
Madder Brown and Cobalt,	
Vermillion and Cobalt,	
Venetian Red and Cobalt,	

Try the above mixtures, substituting Ultramarine for any of the other Blues, especially the Cobalt.

The following series of mixtures for foregrounds, middle distances, &c. &c., are many of them also suitable for local colour, and many of them also will make the shadows for colour, as Burnt Sienna, Indigo, and Gamboge for a green or varied greens, using Vandyke Brown and Indigo for the shadows of these greens, &c.

Burnt Sienna, Lake, and Indigo,	Gamboge, Venetian Red, and Indigo,
Vandyke Brown, Lake, and Indigo,	Gamboge, Burnt Sienna, and Indigo,
Raw Sienna, Madder Lake, and Cobalt,	Gamboge, Vandyke Brown, and Indigo,

- |                                     |   |
|-------------------------------------|---|
| Raw Sienna, Lake, and Antwerp Blue, | Gamboge, Burnt Sienna, and Cobalt,      |
| Raw Sienna, Lake, and Indigo,       | Gamboge, Burnt Sienna, and Anwerp Blue. |

Try these mixtures above by changing all the blues for Ultramarine, and also in the following mixtures make the same exchanges in the Blues.

- |   |                                 |
|---|---------------------------------|
| Burnt Sienna, Indigo, and Italian Pink, | Italian Pink and Antwerp Blue,  |
| Italian Pink and Lamp Black,            | Gamboge and Indigo,             |
| Gamboge and Lamp Black,                 | Indian Yellow and Lamp Black,   |
| Yellow Ochre and Indigo.                | Indian Yellow and Antwerp Blue, |
| Raw Sienna and Cobalt,                  | Indian Yellow and Indigo.       |
| Italian Pink and Indigo,                |                                 |
| Italian Pink and Cobalt,                |                                 |
| Gamboge and Antwerp Blue,               |                                 |

The last six mixtures make a cold and intense green.

- |  |                                 |
|--|---------------------------------|
| Burnt Sienna and Indigo,                               | Yellow Ochre and Madder Lake,   |
| Vandyke Brown and Indigo,                              | Venetian Red and Yellow Ochre,  |
| Brown Pink and Indigo,                                 | Gamboge and Lake,               |
| Brown Pink and Antwerp Blue,                           | Gamboge and Venetian Red,       |
| Raw Umber and Indigo,                                  | Burnt Sienna and Lake,          |
| Raw Umber and Antwerp Blue,                            | Raw Sienna and Lake,            |
| Raw Umber, Lake, and one of the various Blues,         | Raw Sienna and Burnt Sienna,    |
| Indian Yellow, Lake, and a little of one of the Blues, | Vandyke Brown and Burnt Sienna, |
| Yellow Ochre and Lake,                                 | Vandyke Brown and Lake.         |

The student may extend this list to an indefinite length by changing one of the colours for another not

mentioned, and again by changing the proportions of each ; but in all the various mixtures, excepting for skies and distances, the blues should constitute a small proportion of the whole mixture, on account of their power, in the first trials ; this will render the mixing of all the tints used in painting of much easier acquirement, as a very small addition of Blue or Black immediately makes a vast alteration in the mixed colour.

These mixtures will also answer in oil painting, when the colours are not improper for this vehicle ; but White must be very liberally added to all the lighter tints and their gradations ; yet White having a constant tendency to make the tints colder, as it is added the other colours of the mixture must be increased in minute quantities according to the hue required. This process is more readily performed in water-colours by the addition of more or less water. We shall conclude this section by recommending every one who paints in oils to keep by him a small quantity of each in impalpable powder, to be kept in bottles. These powders can be immediately rubbed in to order for use when the bladder-colours are not at hand.

## CHAPTER X.

### ON PICTURE CLEANING.

WE are indebted to this art for some of the best pictures now extant, for in a lapse of ages it must frequently happen that many pictures fall into the hands of careless, inattentive, or ignorant proprietors, in whose possession they acquire, perhaps, a considerable quantity of smoke, and other kinds of impurities ; and this again is securely fixed to the picture when in the hands of new proprietors, or their servants, by a coat of varnish, &c.

It has been by restoring such obscured works that the skilful picture-cleaner has often rendered invaluable service to the study of painting, and increased the riches of the country, by adding greatly to the number of valuable pictures now in different collections. That many have been destroyed is also as certain, but we have good reasons for believing the numbers of those destroyed to be very much inferior to that of the pictures saved, and, in order to prevent such losses, it would be much to the advantage of any one about to clean a picture of importance, and previously ignorant of the different processes, to obtain an inferior painting, on which he might make himself first acquainted with the powers of the solvents generally used ; but to one so uninformed or unpractised,

and where a good picture is at stake, the best advice we can offer is not to attempt it, but rather place it in the hands of one well known as a successful restorer of old paintings.

The usual commencement is with soft water and common yellow soap, with soft soap and water, or with ox-gall and water, the latter being stronger than the soaps. After this the picture is to be washed with clean water, and made perfectly dry with old linen cloth, or silk handkerchiefs ; the latter are the best.

If more be necessary after these washings, as the removal of the varnish &c., use a little smart friction with the finger, dipped previously into a box of *impalpable* pumice-stone powder ; this will ascertain, by the peculiar smell produced, whether the varnish that has been used is mastic or not. If it be mastic, it may, by a continuance of the same process, be rubbed from off all the delicate parts of the picture, without much risk of taking up the colour, as the varnish rises under the finger in the form of a white powder, which ceases to rise after the whole has been taken off ; some use a small bottle cork, instead of the finger, but this is not so effectual, as it is more unyielding. For the removal of a stronger varnish, as copal &c., a mixture of spirit of wine and spirit of turpentine will be required ; to make these two spirits unite, a small quantity of the salt of tartar is to be added. Every time this is used the bottle is to be well shaken, and very little poured on the picture, which is to be rubbed with a small piece of flannel ; then lay on the part rubbed a few drops

of oil of olives, to retard the action of the spirits. These operations are to be repeated over the whole picture, frequently changing the pieces of flannel, and as frequently applying the olive oil, in order to see what progress has been made. The picture lastly is to be washed with a sponge, with water and a little soap, afterwards with clean water, and then covered with a fresh varnish. If any stains should be found on the picture so unconquerable as to remain after the above processes, a little oil of spike lavender will certainly remove them ; but the greatest care, as we have before observed, must be taken in using this essential oil ; it softens old paint so quickly, that there is scarcely time to apply it, and the olive oil, before it has gone too far ; it is better to reduce its strength with spirit of turpentine, if it should happen to be too genuine ; many use lancets and small scrapers, but this operation has also its risks from scratches, &c.

It has happened, that an over-zealous picture cleaner has discovered more than he has wished for when his materials have been too strong, where sometimes a landscape has been slightly painted over another subject, as a marine or flower piece, or portrait, and the reverse ; this is a dilemma fortunately of rare occurrence, the simple ground of the picture being much more often exposed ; and it is in this way a knowledge of the grounds on which the ancients painted has been acquired.

In old paintings which have been exposed to damp and bad air, or have been otherwise much neglected, we often find cracks, or the paint and ground wholly peeled off in

places, yet from this almost hopeless state we have seen some very good pictures admirably restored.

In all cases, if a picture has not been already lined, it will be best that this should be done before any other operation takes place ; and it is so much better done by those who make it their business, that we recommend none who have the opportunity of getting it done in London, or other places where there are persons accustomed to it, to venture on performing it themselves ; but as it must occasionally happen that such persons are not at hand, we may recommend the following mode as one that is quite safe.

Take the old picture from the stretching frame, and lay it on a perfectly flat surface, as a table or large drawing board, something larger than the picture, the front of the picture upwards ; lay on the surface of the picture a sheet of paper covered with thin paste, particularly if the picture is broken in the paint, or has holes in it. Afterwards take some thin glue size, and with it make a paste of wheat flour ; this, by some, is used moderately warm ; others prefer it cold, and at least one day old ; perhaps the former may be considered as best.

The picture is to be made something less than the new stretching frame on which it will have to be placed when ready, by cutting a little off its edges, and the canvas, or unbleached cloth, which is to constitute the lining, must be so much larger than the picture as to leave a sufficient quantity to admit of its being nailed on to the new stretching frame. The picture must now be laid on the table or

level board, front downwards, the table or board having been previously made moderately damp with a sponge; this will make it adhere, in some measure, to the table; but if it be wished that the picture should be immovable, as in the process of transferring from an old cloth to a new one, described farther on, the best mode is to have the paper that is attached to the front of the picture something larger than the picture, so that the edges may be made fast to the table with glue or paste. The back of the picture is next to be covered with paste, or very strong copal varnish, or with a cement, or kind of glue, made from good cheese that has been well pounded in a mortar, and then washed with warm water to carry off the most soluble part of it. The substance which is left can only be dissolved by being beat up with lime water again in a mortar into a paste, to which it is added gradually, until it becomes sufficiently diluted for use; but whichever of the above may be used, it must be well brushed on to the back of the picture, and the lining well pressed down on to it, by passing the hand over it in every direction; the outer edges of the lining are to be nailed to the table with a great number of small tacks, drawing the canvas as tight as possible in every way; afterwards a piece of wood, with a rounded edge, is passed over the lining with a tolerably hard pressure, to perfect the adhesion of the picture. The glue made from cheese has the valuable property of being, when dry, perfectly insensible to any kind of wet or moisture. When the lining is so far dry that the paste or glue which has

penetrated through will not stick to the iron, it is to be passed all over with a heated iron, not too hot, and the greatest care must be taken that the hand does not stop for an instant, or the mark of the iron will be so impressed on the picture, that nothing can obliterate it. The picture is now ready to be nailed on the new stretching frame, and the paper is to be washed off its front with a sponge and cold water.

Sometimes, when the cloth on which a picture has been painted is so decayed or broken as to make it desirable that it should be entirely taken from the paint, the picture is covered with paper, as if for lining, and then fastened to a board or table, as above described ; after which the old cloth is rubbed off by a small rasp, with very fine teeth, and not unlike a baker's rasp in miniature ; when this has gone as far as may be prudent, the remainder of the cloth is to be taken off with pumice-stone, stopping all farther progress on the first appearance of the ground on which the picture is painted ; the picture then has to receive its new cloth, which is laid in with copal varnish, glue, or paste, in the way above described, only avoiding the use of the heated iron, and in the same way fastened to its stretching frame, and lastly, to have the paper removed in a similar manner.

It occasionally happens that the wood or panel of pictures becomes so decayed, that there is a risk of their falling to pieces ; in such cases it is necessary to remove the old wood from the back of the picture, and replace it with a new cloth. This is performed by cutting the wood

in various directions (after the picture has been properly laid face downwards, as above mentioned) with a fine saw, so fitted that it can only cut to a certain depth, *viz.* not quite to the paint or ground; the small pieces of wood are then chipped away with a chisel, then the rasp, and lastly the pumice stone, after which the remainder of the process is to be completed as already described.

The next process will consist of any, or perhaps all, the different operations, in order to take off the dirt and varnish; the washings with soap and water, or any other solvent used with water, should be done before the picture is lined, unless it be in so bad a state as to render it dangerous; in such a case the lining must be first done, and whatever water has to be used must not rest so long on the surface as to injure the quality of the paste used in the lining, by oozing through the cracks and holes in the picture.

When the varnish and blemishes have been removed, the cracks and damaged places which require filling up are to be made good by using, where hardness is required, a putty made of pipe clay, or whiting, crushed very fine, and paste, such as was used for the lining process. This putty should be made stiff, and pressed well into the damaged places with a palette knife, and where the broken parts are of any extent, care must be used to get a true and even surface, level with the surface of the picture; this, when dry, may be painted on with oil colours ground exceedingly fine, and made a little lighter than the surrounding colours of the picture, as all colours

ground in oils dry darker than their original hue when on the palette, or whilst wet, as it is technically called.

Many prefer to use a putty made with drying oil and whiting, in which colours are mixed, and thus matching the tints of the picture in some degree with the coloured putty ; this mode will also answer very well. The former, when made with parchment size instead of paste, becomes exceedingly hard and durable, and Ibbetson, whose judgment in all things that appertained to the qualities or condition of old pictures was very good, gives us the following anecdote of one which he had to repair : "I had a picture, painted by Paul Veronese, in a deplorable condition, to repair, more than twenty years ago ; when I found that it had been painted in size colours, and finished by repeated glazings in oil, or varnish colours, and that this was beyond a doubt, I set it to rights with water-colours, and found it to correspond exactly ; some pieces which were broken off were still soluble in hot water, as I found upon trial ; the size had been so strong as to prevent the varnish from being absorbed. The Bassans also painted in the same way, and Roos, or Rosa da Tivoli, painted almost entirely in size. It is rather strange that Sir Joshua Reynolds, in his innumerable experiments, should never have hit upon size colours, they being instantly dry, and, however loaded, would always remain firm. The raised work on old japan clock cases, &c. are done in the same way, and are almost indestructible."

In every operation of picture cleaning, we must ever

have in mind the great care requisite in order to preserve entire, or as much so as possible, the glazings and last finishing touches of the artist, which, lying on the uppermost surface of the work, and, moreover, always of the most delicate texture, are too often removed with the dirt which may obscure the picture, even before they have been seen by the operator, indeed so often, that many skilful artists are constantly employed in London and other great capitals, in restoring, to the best of their power, the unavoidable damage which must necessarily take place, when powerful solvents have to be used to remove the accumulated and blackened varnishes, oilings, &c. of ages, and however we may object to it as far as concerns the originality of the picture, every one will acknowledge that it is much better we should have even the half only of a valuable painting than none of it, or to keep it in its obscured condition.

Among the powerful solvents are to be classed the alkalies, the safest of which is the carbonate of ammonia ; this is generally too strong to be used alone, and must be weakened by the addition of water, and the sponge and clean water frequently used, in order to see the progress making, as well as to prevent mischief.

The fixed alkalies may be also used for stronger purposes, but of course they are so much more dangerous, such as potash and soda. We do not prefer the alkalies ; on the contrary, have always used the spirits of wine combined with spirits of turpentine, finding that the progress is more easily discoverable under this process than that of

the alkaline methods. The cotton wool, or, what is better, small pieces of flannel, gather up much of the soiled varnish as it comes off the painting; these are thrown away, and fresh pieces of either substituted, which, being clean, serve also to clear the work at the outset, and a little oil of any kind will, if frequently applied, either with a brush or piece of flannel, shew as perfectly as a new varnish the exact state of the piece at every trial.

Fullers' Earth has been found useful, but this cannot remove any soil occasioned by bad varnish, or oils that have been laid on by injudicious persons.

Sulphuric Ether is in use also as a strong solvent; this is used with spirits of wine, and its too great action, or when it has answered the intended purpose, may be checked by olive oil, or water in which a small portion of soap has been dissolved, and lastly clean water.

Ox-gall, when laid on the picture in quantity, and allowed to remain for a few days after it has become quite dry, clears off the common impurities to which pictures are liable, in an admirable manner, by the simple process of clean water and a sponge.

We have before stated the necessity of not leaving water too long on the surface of an old painting; the necessity for this caution will be found in the supposition that size or paste may have been used in the ground or substratum of the picture.

All the paintings and re-touchings, glazings, &c. should be allowed plenty of time, to permit the change that the new paint invariably undergoes to be seen and corrected,

before any varnish be laid on the picture, and should any circumstance prevent the operator from having the picture lined, a tolerable quantity of some good and perfectly colourless and unchangeable varnish, well brushed into the back of the picture, will materially assist any varnish laid on its surface in bringing out the original tints ; but no process whatever can equal that of lining the picture in the manner explained, and afterwards of working with care on its front, and sedulously avoiding any additions of paint in places that are not damaged, or that do not require it.

The following extract will shew in what manner Mr. Ibbetson gained much knowledge, whilst employed in repairing the mischief made by the cleaners and restorers of *those days*. (It is taken from a small work on oil painting, published by him.) “Good comes out of every thing,” he says ; “I, by looking over the intelligent being (a picture cleaner) when it was scouring day, had the pleasure of seeing all the different coats or strata of a variety of pictures vanish one after the other, from the epidermis, or last transparent finishing, down to the raw dead colouring, beyond which he seldom ventured. But I am under the greatest obligations to my dear old friend, John Evans, for going still further ; he certainly was in his time the best of all possible grubbers, though, in the present day, we do not want ‘five hundred good as he.’ He, by means of a delicate Malmstock and water only, used to let me see on what coloured grounds the ancients all painted ; he fetched off every thing, except a stubborn

bit of heightening. Mr. Peter Brozet, another of these notables, did the same thing, but could not for his life make his work so smooth as John ; he was of the old sect of sand and scrubbing brush, and has numerous followers. However, the prevailing schism of the searching soap-lye, which finishes the canvas and all, bids fair to become the rage," &c. &c.

It is not a little consolatory, that the pictures now in existence have a very different fate awaiting them ; picture cleaning is much better understood. Something more than a pretence to knowledge is required in every thing relating to the fine arts, as well as in all other things ; and the really good pictures of the ancients, as well as those of the moderns, can no longer be subjected to the operations either of the soap-lye or the Malmstock brick.

## CHAPTER XI.

### ON THE VARIOUS KINDS OF BRUSHES, GRINDING COLOURS, &c. &c.

THE preparation of oil colours is so well managed by those who make it their entire business, that no amateur or artist can enter into competition with them to his own advantage ; but as both may be thrown into positions where the facilities afforded by London and other great towns are not immediately available, it may not be unacceptable to have a few hints on the manner in which oil colours are prepared.

When colours are to be ground in quantity, a large porphyry stone will be necessary, with a muller of the same material ; but for small quantities we recommend a slab of ground glass, fixed on a strong deal board, with edges of wood, not so high as the surface of the glass, but sufficiently high to prevent the glass from moving off the board ; with this a muller of ground glass is to be used. The ground glass slab is an indispensable article to every one painting in oil, as the colours and tints have to be tempered and mixed on it before they are transferred to the palette ; no tints of any breadth, as skies, &c. for large pictures, flesh tints for portraits, backgrounds, and others, ever being mixed on the palette or by the brush with equal purity.

When crude colour has to be mixed or ground, it must

first be crushed into a coarse powder, adding a little of the oil to it (nut or linseed drying oil), and with the muller the colour is then to be crushed into a thick paste, remembering, that the less oil that conveniently can be used, the more readily will the colour be ground fine, and as the colour becomes finer, it will require frequent additions of small quantities of oil; and during the whole process, the colour which is constantly gathering round the edges of the muller must be removed with the spatula, or palette knife, and again placed under the muller; the knife should be of horn for all the finer colours.

In manufactories where they are ground in large quantities, a stone is kept for almost every colour; but the amateur or artist who will be at the trouble to prepare his own colours, must also have the additional trouble of cleaning the slab on which they are ground, and that most carefully, every time a fresh colour has to be placed on it. This will be best done by rubbing a little oil over the stone or slab, which may be scraped up with the knife, or rubbed off with a handful of the thin leather shavings called currier's shavings, or cloth of any kind, and lastly, with a sponge, soap, and warm water. We must not omit to recommend a wooden cover for the slab when out of use. Some colours require so much crushing and grinding before they are sufficiently fine for use, that the oils in which they are ground become in some degree viscous, or tough, or in technical language, fat. To avoid this, it would be best to keep all the crude colours in powder; they are sold at most colour shops in this state,

and are, as nearly as possible, impalpable. This condition is obtained by grinding them in water, and saves so much time and labour, besides obviating the fatty tendency of grinding, that it needs no recommendation, and for the finer colours, perhaps, is to be preferred, where there is an intelligent servant to superintend the painting-room, as all colours are undoubtedly the best, and work with greater freedom, which have been most recently prepared.

There are two essential conditions with regard to colours: first, they must be of the best quality in their crude state; and secondly, are to be exceedingly well levigated, for without this latter condition, however good the crude colours may be, their hues will be imperfect. All the darker colours, when very coarsely crushed, differ not greatly from each other, being in such a state no better than coloured sand or gravel: and it has been found, that the more the colour is crushed or ground, the greater intensity of hue is produced, and, consequently, the greater durability; approaching in this latter state a solid mass of the finest particles, so closely adhering to each other, as to leave little space for oil or vehicles (substitutes for oil). In short, we consider the colour-grinder's department of so much consequence, that we have had occasion to repeat the remark more than once in the course of the work.

Another important consideration in the use of oil colours (and more so in oils than in water-colours), on account of the trouble in cleaning the brushes, is the necessity of keeping a brush for the different tints, as in

nature the colours and hues are so perfect, so distinct, and clear, that when we have done all that colours can do in painting, we are left far behind. Thus every means are to be employed which we can have at command, to preserve our colours or tints from contamination, by mingling with others ; and this, as far as the brushes are concerned, can only be done by using separate brushes for tints and colours that essentially differ from each other. For example, if we are using a brush with a tint composed of Venetian Red, Black, and White, this brush cannot be soiled by any admixture of these three colours ; but the addition of another colour would destroy the power of again using that brush for those delicate tints which are often produced by the above mixture ; or if we are using tints made of Venetian Red and White, any other tint or colour added will prevent the same brush from being again properly used in the tints of Venetian Red and White. From the above it will be seen, that a good stock of brushes must be at hand for those who paint in oil, and these, when used, must be carefully cleaned with a little raw linseed oil in the first instance, and the oil afterwards washed out with soap and water, till the froth which is made on the palm of the hand becomes perfectly colourless ; the brush is then to be rinsed in clean water, and the wet pressed out of it by a clean cloth or towel, restoring the brush to its proper shape at the same time. Great care is to be used when cleaning brushes, not to break the hairs, as it renders them useless.

Many artists have a tin purposely made to hold brushes

which have been used—in this, after being dipped in raw linseed oil, they are left with much of the colour remaining in them, till again wanted. This mode may do for large brushes that have to be employed in the dull colours of some kinds of backgrounds, but the trouble of getting rid of the raw oil, which would prevent colours from drying if not well cleaned out, is not much less than the trouble of washing the brush ; and none can know the pleasure of having a perfectly clean set of brushes to commence with, but those who have had much occasion to use them.

When the brushes are left in a tin with the raw oil, they are to be well washed in spirits of turpentine before they can be used ; but from long experience we recommend the better system of washing, a method which a servant will acquire on seeing one set of brushes properly washed and dried.

When varnishes or other strong vehicles have been used, the brushes must have the colours taken out by spirits of turpentine in the first instance, then apply the raw oil, and lastly the soap and water ; but when copal varnish has been employed, it will sometimes become so hard that spirits of turpentine will not soften the brush sufficiently—in this case the essential oil of spike lavender is the readiest, after which, the spirits of turpentine, &c. Sometimes the oil of spike lavender is used with the colours in place of spirits of turpentine ; but few heads are strong enough to bear the extraordinary smell it produces, especially in hot weather, or a heated room.

Whenever it happens that camels' hair brushes have to be used with the stronger vehicles, the process of cleaning so far injures them, that it will perhaps be least expensive, and certainly less troublesome, to throw them out altogether, for a very small quantity of the essential oil of spike lavender is worth much more than a camels' hair brush, particularly when the latter are purchased by the gross, or twelve dozens.

Among the different kinds of brushes in general use, the hogs' hair make the firmest, and are suitable for dead colouring, or for spreading any large quantity of stiff colour: these are made round and flat; perhaps the latter shape may be named as most useful, for a corner of the brush will at all times adapt itself to the execution of the smaller touches. These brushes are used as well in the beginning as towards the completion of a large picture, when, instead of firm undiluted colours, they are used with varnish or other vehicles, in order to glaze and tone down the brightness of those colours that have been laid in for this purpose, or which may be accidentally too gay or vivid.

For small pictures of the highly finished class, camels' hair brushes, or sables, will be best, especially after the first or dead colouring. The first painting of small pictures may often be laid in advantageously with the smaller and finer kind of hogs' hair brushes, called Lyons tools, from the name of the place where first made; they may be had of almost every degree of softness or hardness; these are much superior to another kind of brush called

the Fitch, the hair of which is usually black, and very strong. This has gone much out of fashion since the French improved hogs' hair brushes have been known : in short, the fitch is almost too intractable for use. The last we shall mention is made of badgers' hair, called a softener, and used for blending and softening neighbouring tints with each other whilst wet ; in skies and water, this brush (which should have long hair), by being passed gently in every direction over the work, will give certain appearances of transparency that nothing else can imitate. It also takes away the mark of the brush, so offensive when seen in a clear sky ; there are few places, indeed, where it is desirable that the mark of the brush should be seen.

For landscape, marine pieces, and backgrounds, the first painting may in some measure be done with a palette-knife, and awkward as the utensil may seem, a little practice will show that a large picture, where the subject will permit, may be laid in (as it is technically called) with a flexible pallet-knife of horn or steel, or any other pliant spatula, in much less time than with a brush, and in a bolder style, as well as greater purity of tints, which invariably work cleaner from the horn or tortoise-shell palette-knife than in any other way.

## DESCRIPTION OF THE PLATES.

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PLATE I. represents two palettes, the upper one being charged for landscape (finishing), and the lower for portrait painting. It has to be noticed here, that in large works the palette most commonly has not more than two or three tints placed on it, on account of the great quantity of colour used in the commencement of such works ; but as the work proceeds, the palette holds a greater variety of tints, less of each being wanted ; but in all cases the tints are laid on the palette in a regular progression, beginning at the nearer end with white, and ending on the farthest part with the darker colours. The light colours being most wanted, are placed most within reach. The brushes at the bottom of the plate are of the size and shape most generally useful.

PLATE II. *Figs. 1* and *2* are given to shew the contrast of a warm and cool style of colouring. In *Fig. 1*, sunshine, the greens on the foreground are necessarily of the richest kind, and other colours, of whatsoever kind, under the same influence (sunshine), would be equally rich ; these would all change gradually as they retire from the front, by the increase of the intervening air tint, till they mingle with the sky, as the greens in the *Fig. 1*, where they are contrasted by the dark leaves and rich browns of the large tree, whilst the warm tone is kept up by the orange tints of the Bittern. In *Fig. 2*, all is more subdued, and par-

takes of the cool grey which a cloudy atmosphere invariably gives, more or less, to every object, however warm the colour of that object may be. *Figs. 3, 4, 5, and 6*, in four different progressive states—No. 3 being the outline, with the yellow of the sky laid in, and brought down over the foreground. *Fig. 4* has the blue of the sky, the warm tint of the hill-top changing into blue; the first tint of warm green also changing into a green grey; the brown of the house, and the first tint on the grass and road. In *Fig. 5*, the hill has received its finishing tints of blue; the trees and grass are more wrought, and the house and road have also had an additional tint. In *Fig. 6* the whole is finished, the figures, which are generally done last, being introduced.

**PLATE III.** *Fig. 1* represents an oil painting in its first state (landscape), which is called the dead colouring, and in which the objects are painted in indistinct masses of middle tint, the distances being usually finished, and the figures left out, except when large. *Fig. 2.* The whole is finished by placing the high lights and dark touches, and the introduction of the figures, with various glazings and scumblings to harmonize the whole.

**PLATE IV.** *Fig. 1.* This subject is introduced as a specimen of mild contrast; the green of the trees, the grey of the palings, and the tint of the water, forming a mass of middle tint of more or less strength throughout the picture, the object of which is to bring out the colours of the cow, the only point of interest in this piece. This kind of effect, although not so good for subjects where a number of objects are combined, is particularly adapted for the representation of a single figure, or animal, which is rendered more striking by the breadth of middle tint surrounding it. Sketches on grey paper, touched up with

white, generally come under this class, and are peculiarly pleasing. *Fig. 2* is an example of one of the most easy and at the same time agreeable effects: we mean the placing a light object on a light background. In this subject, the light part of the ruin is brought out from the light sky, entirely by the contrast of the cool colour of the latter, standing against the warm tints of the former. *Fig. 3.* An evening scene, arranged somewhat in the manner of Cuyp, who generally placed a light and dark object together on one side of the picture, and then brought a still darker object against the light part of the sky, in order to render it more brilliant, and by the excessive contrast give piquancy to the whole. This subject is taken from a sketch by the Author's brother, the late Thales Fielding, Professor in the Royal Military Academy, Woolwich, whose early and lamented death shortened the estimable career of one who was steadily pursuing his way to the summit of his profession, and the Author regrets that no coloured print can do justice to the sketch, nor indeed should the fame of any artist be ever made to rest on coloured prints. To the print collector, the Author begs to point out a mezzotinto engraving from a painting by Thales Fielding,\* which for true poetical pathos, in the writer's estimation, yields to few. The subject is the last interview between Robin Hood and Little John, at Fountain's Abbey. The invalid (Robin Hood), reclining on a couch, draws his bow, with an arrow placed, in order to point out to his friend, by the flight of the arrow through an open window, the place where he wishes to be interred. The size of this engraving is 14 by 18 inches, and it is ably executed by Thomas Lupton, Esq.

\* Obit Dec. 20th 1837.

*Fig. 4.* In this subject the black stormy clouds mingling with the dark part of the sea, form a strong contrast with the light parts of the sky, in the style of Rembrandt, who sacrificed every thing for the sake of one brilliant flash of light, regardless whether that light fell on the white turban of an Eastern king, or the linen of a child's cradle.

PLATE V. *Fig. 1.* Sea-shore; Backhuysen.—*Fig. 2.* The Finding of Moses; Rembrandt.—*Fig. 3.* Cottage; Rembrandt.

PLATE VI. *Fig. 1.* Stag-hunt; Snyders.—*Fig. 2.* Italian Villa; Gaspar Poussin.

PLATE VII. *Fig. 1.* Girl spinning; Ostade.—*Fig. 2.* The Crucifixion; Rembrandt.

PLATE VIII. *Fig. 1.* Cottage; Everdingen.—*Fig. 2.* A Child in a Cradle, a remarkable specimen of Rembrandt's single light.—*Fig. 3.* Cottages; Rembrandt.

PLATE IX. *Fig. 1.* Female sewing; Le Prince, after Rembrandt.—*Fig. 2.* Anointing the feet of our Saviour; Tintoret.—*Fig. 3.* Trees; Ruysdale.

PLATE X. *Fig. 1.* Banditti; Claude Lorraine.—*Fig. 2.* Hagar and Ismael; Lud. Carracci.—*Fig. 3.* The Infant Saviour and St. John; Raphael.—*Fig. 4.* Rembrandt's Three Trees.

The plates which are not coloured are entirely taken from the works of the old masters, and will serve a valuable purpose to the student, if carefully examined. It will appear that every kind of outline may be used, and also that it is not very important in what part of a picture a chief light be placed, if the rest of the picture be arranged accordingly. We should say, as a kind of general rule, that if the principal light be placed about the middle of the picture, the remainder will be more

easily arranged than when it is placed to one side, for all effect, both of light and shade, is contingent upon a fixed principle in vision, *viz.*—that when the eye is regarding attentively one object or group of objects, the remainder, which may be within the field of vision, are less and less distinctly seen as they recede from the group under examination, and become, in places where shadow may happen to lie, so indistinct, that, in pictorial language, they serve as reposes, or places which the eye can examine without the excitation occasioned by those groups which are in strong light and shade, for it is a natural consequence that bright lights should be accompanied by strong shades, and that they should also enforce each other by the most powerful contrast.

It will be found on going through the accompanying plates, that a powerful effect is not always produced by merely a *juxta* position of strong lights and shades, or of colours forcibly contrasting each other, for as much effect may be produced by harmony in colouring or breadth of light and shade, (by the latter we mean uniting lights with lights, and shadows with shadows, separating the objects chiefly by difference of colour); and it is a question whether a more lasting and powerful impression may not be made on the mind by the harmonious adjustment of colours, as used by Guido, Murillo, and others, than by the most gorgeous display and arrangement of contrasts which so greatly captivated almost all the masters of the Italian schools.

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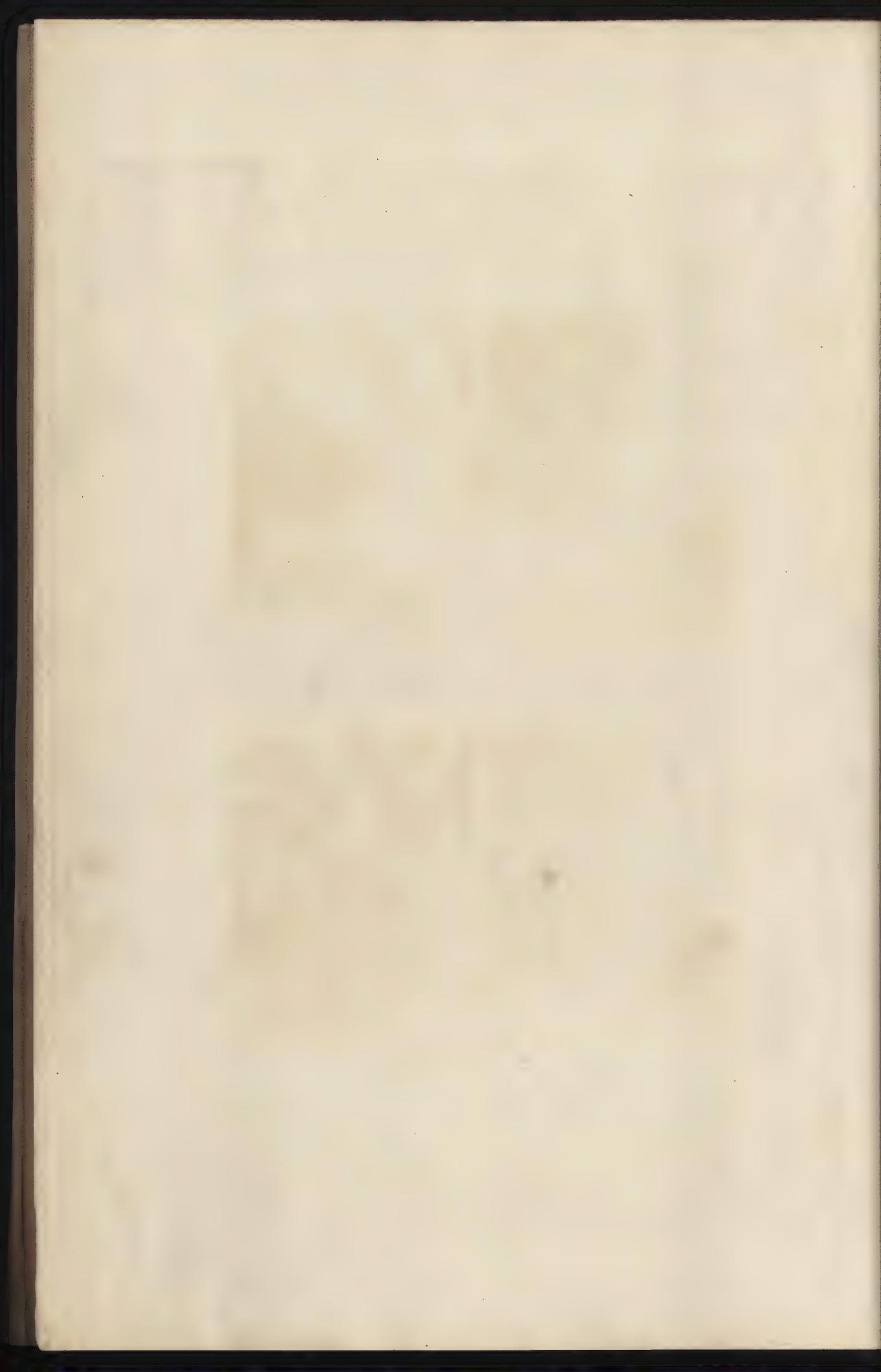
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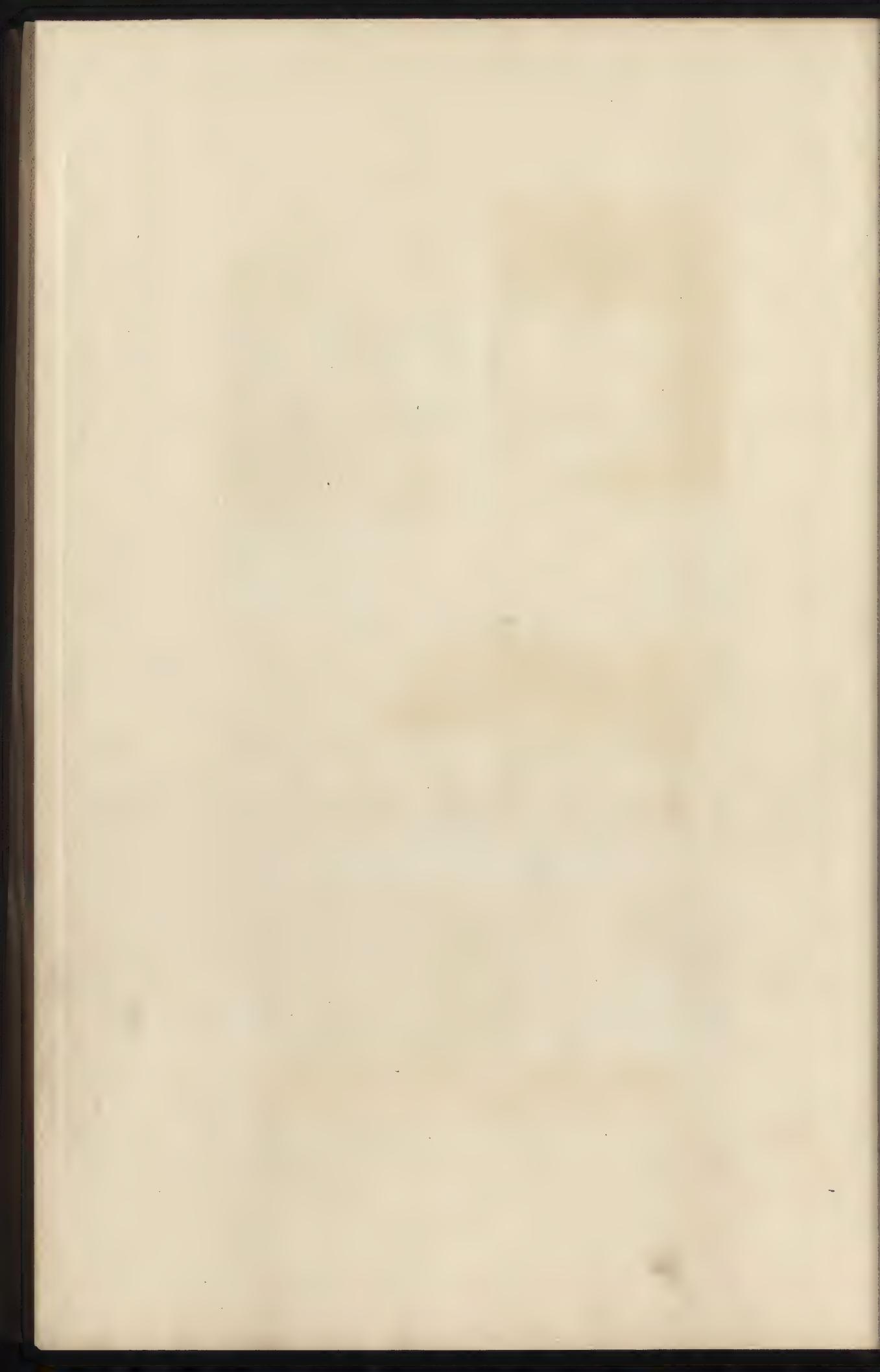
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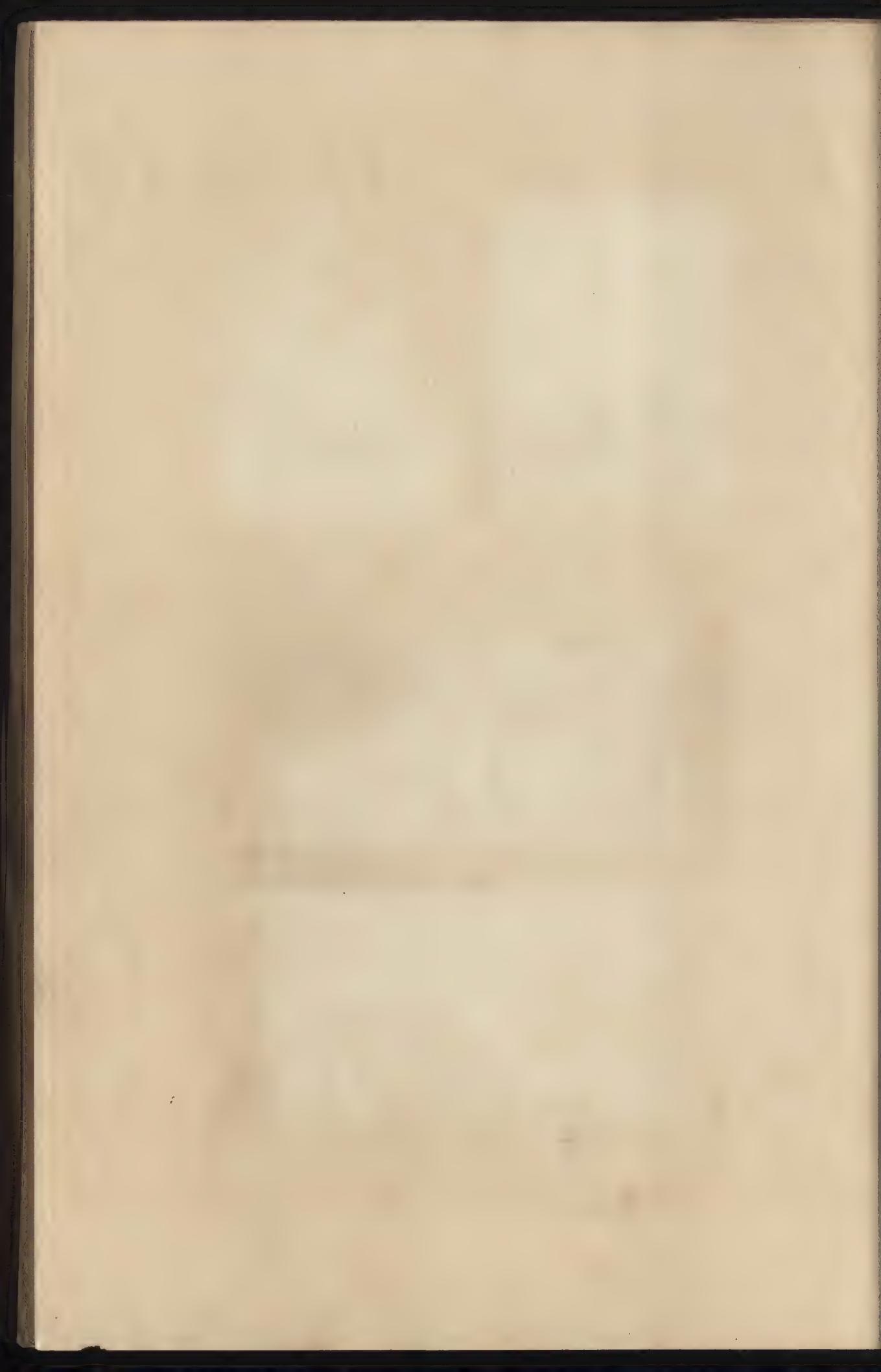




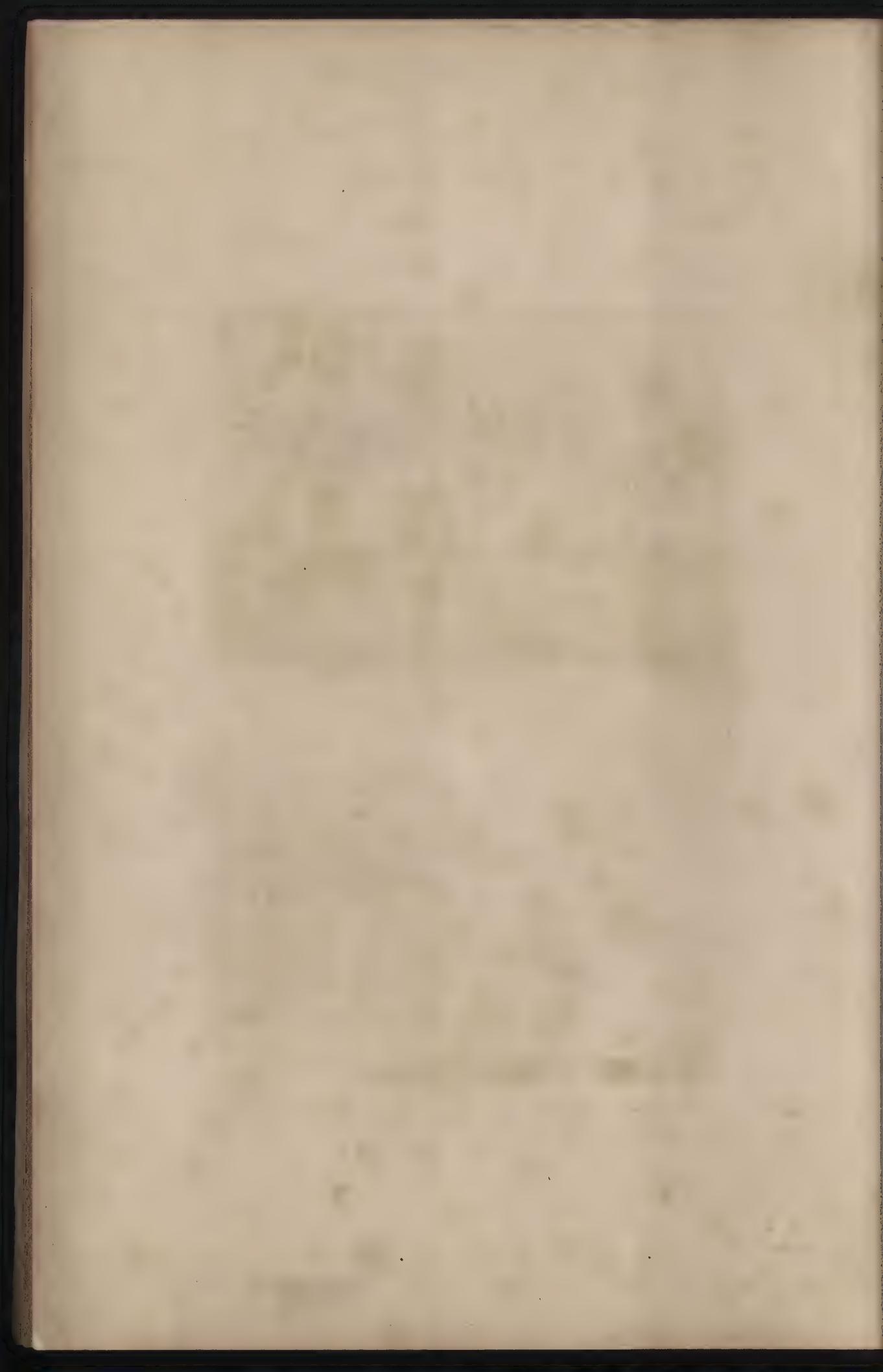






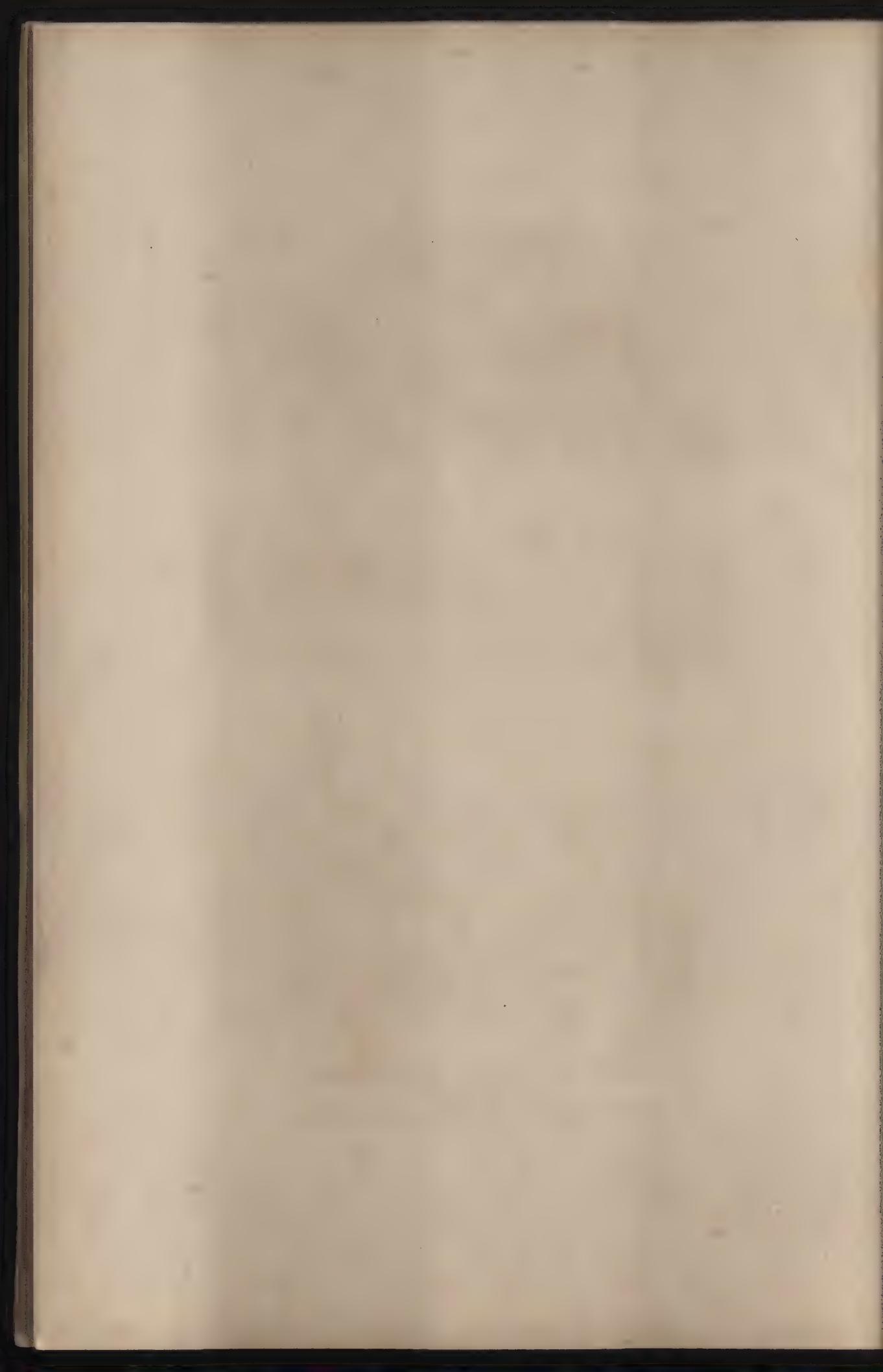




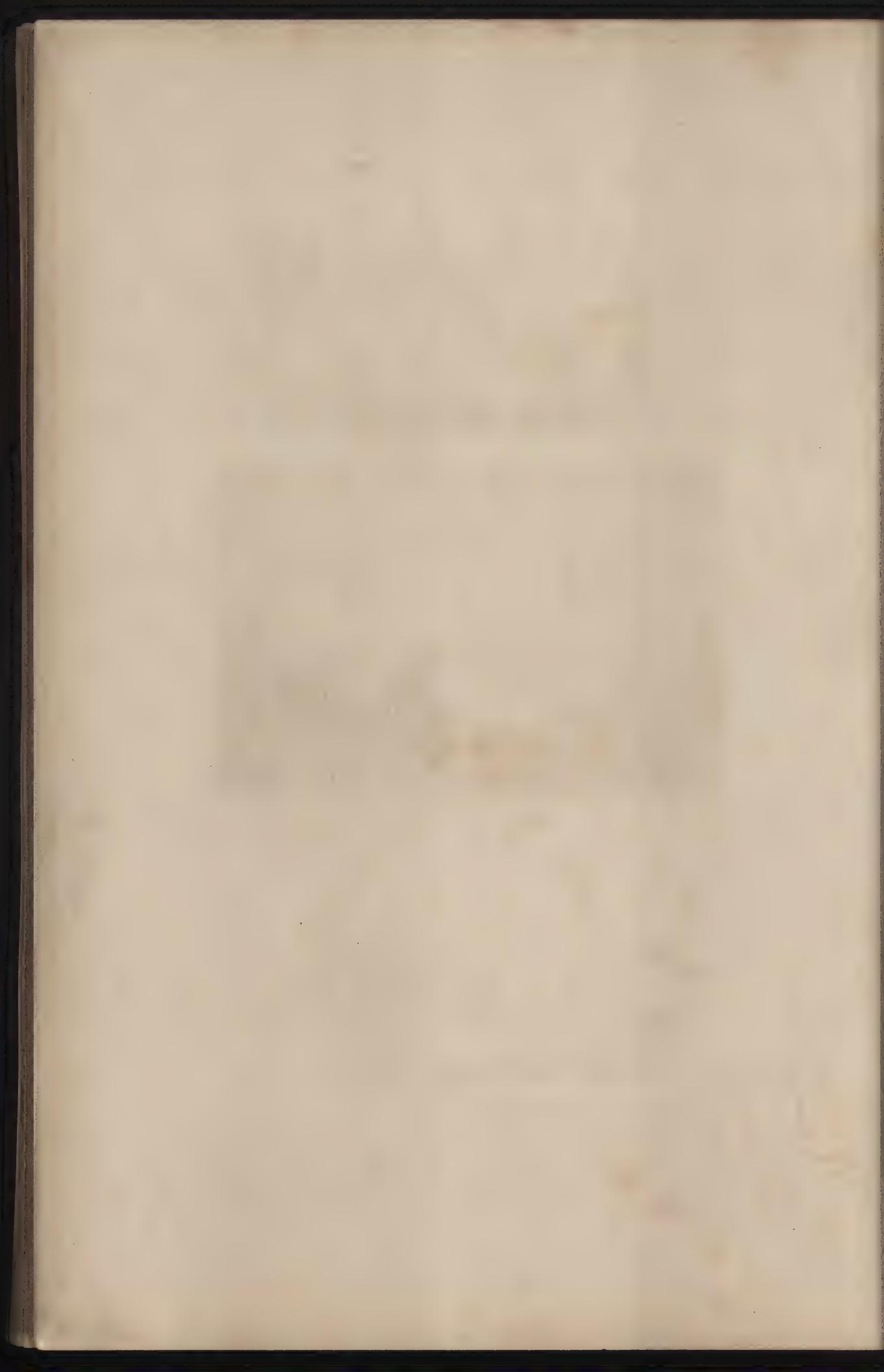


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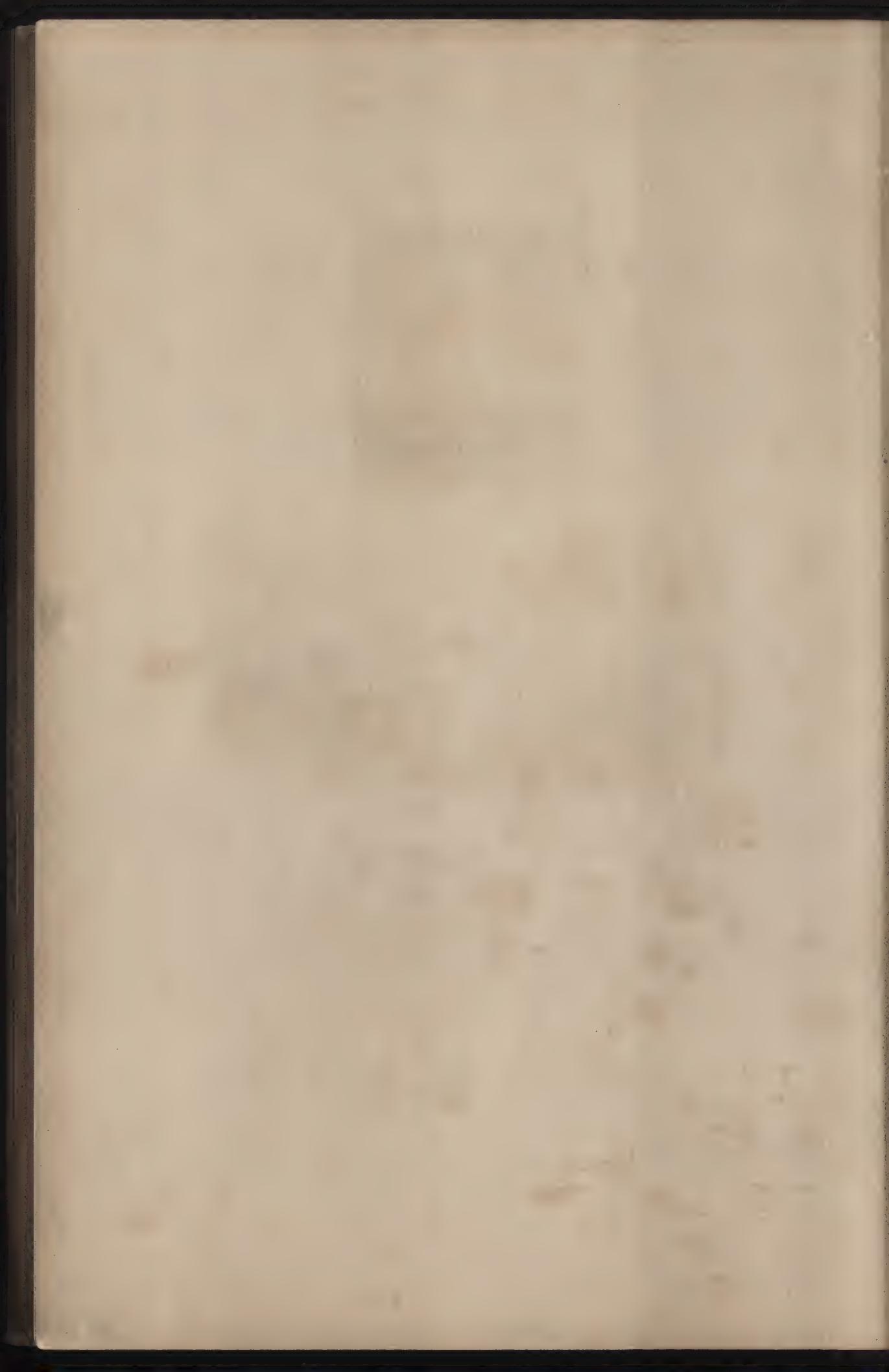




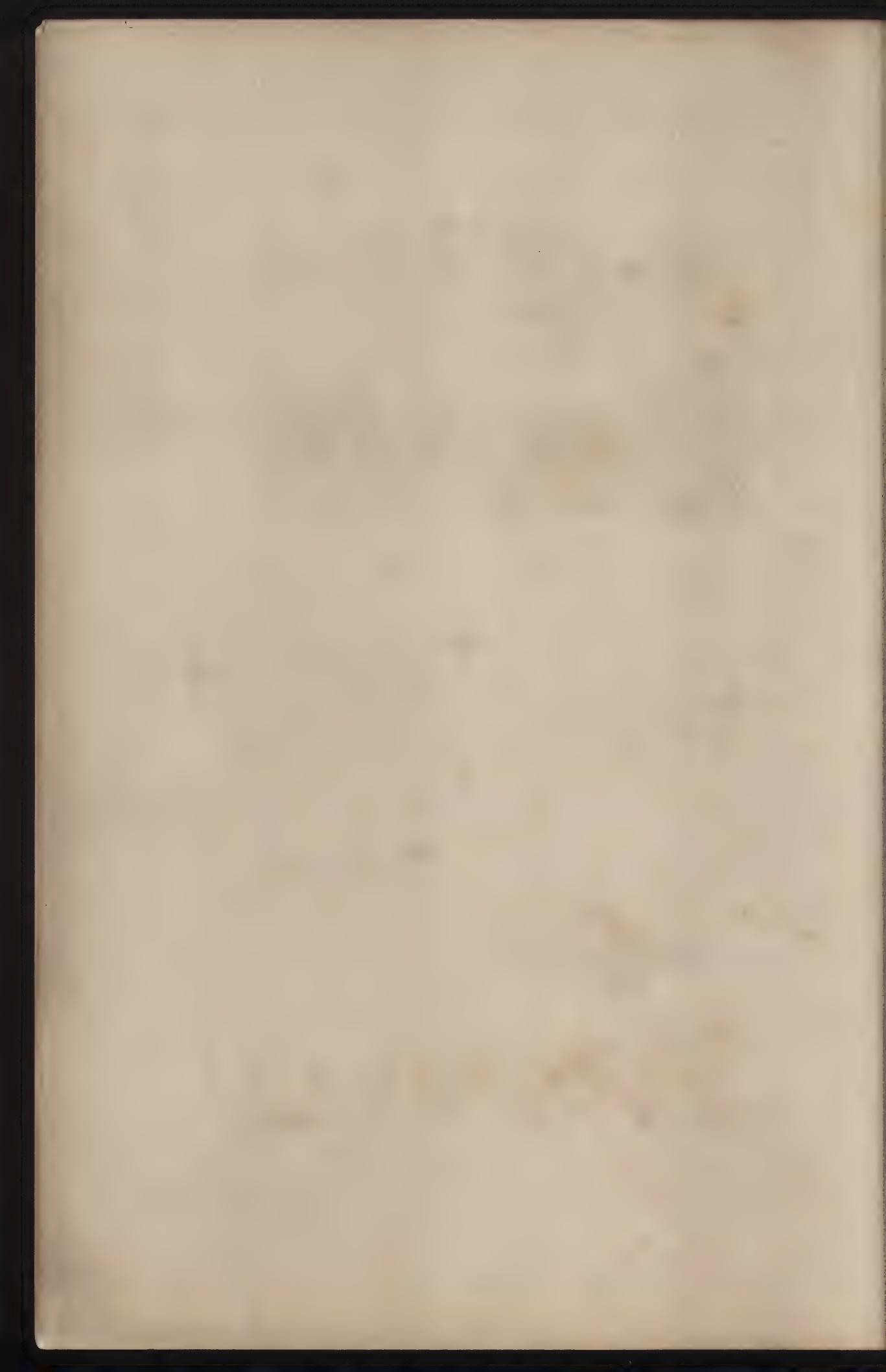




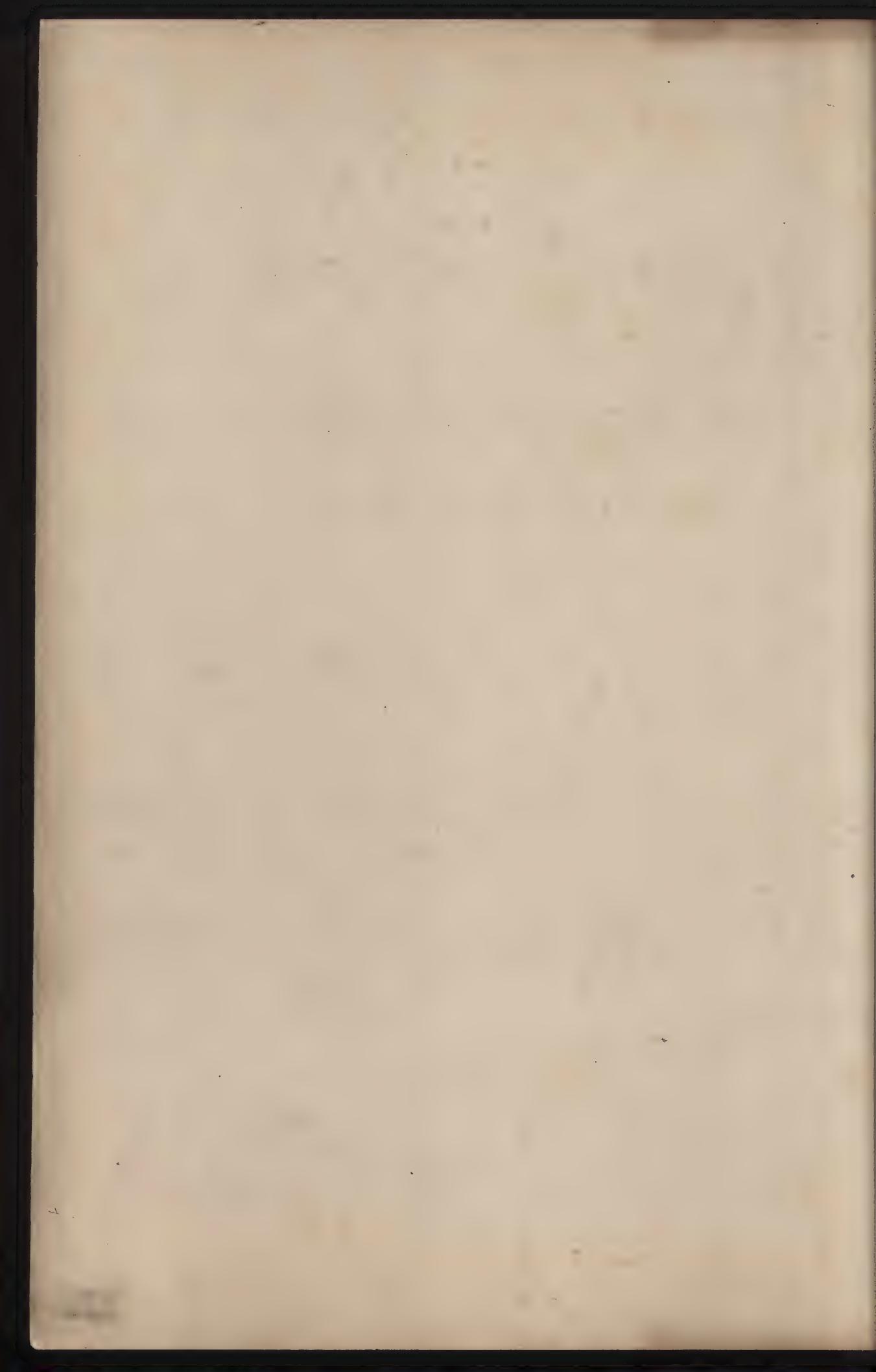






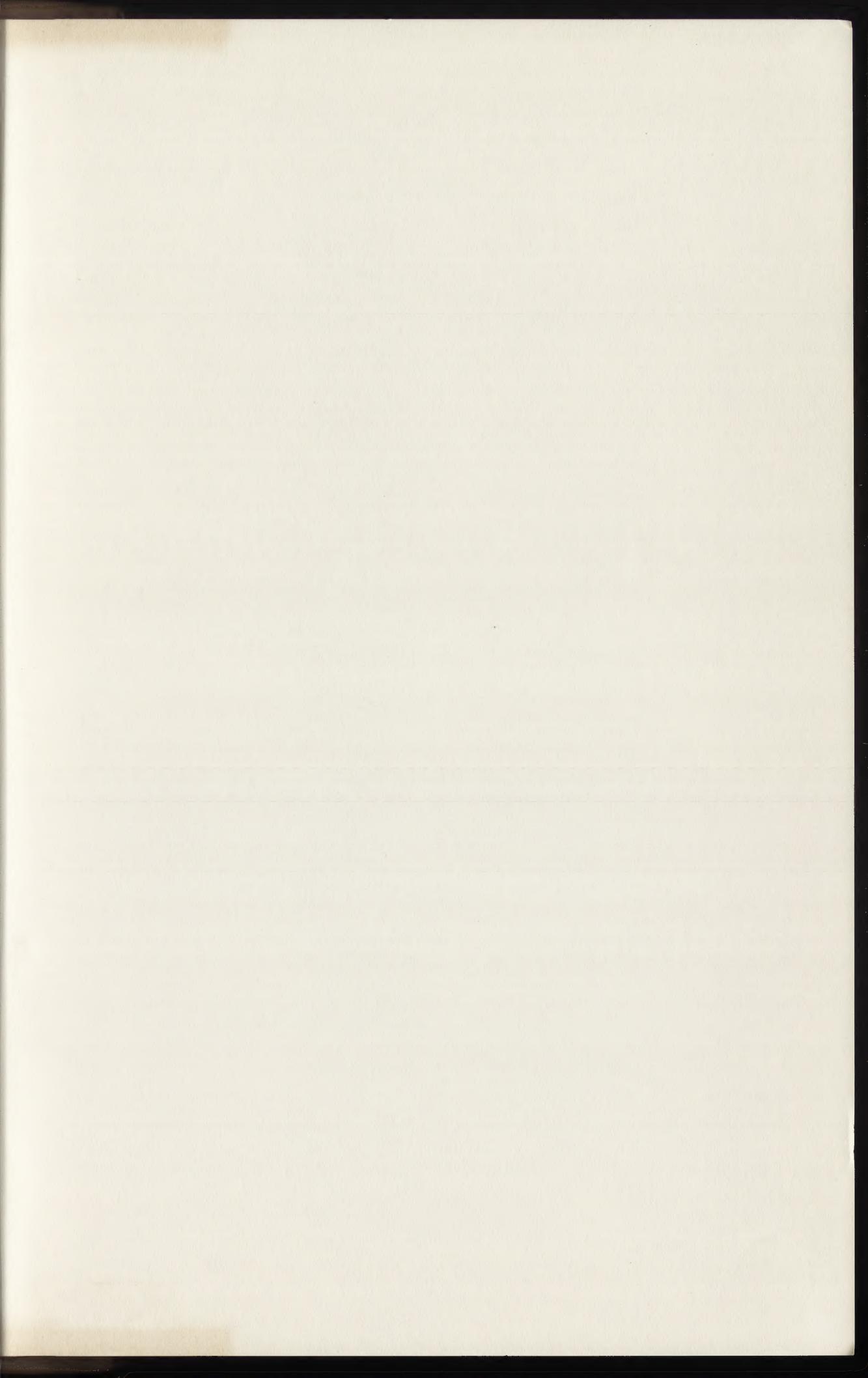














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